



Omni-McCann

Phase I Environmental Site Assessment

Sangudo Raceway – Lot 1, BLK 1,
Plan 1023203, Sangudo, Alberta

Produced for:

Lac. Ste. Anne County

Produced by:

Omni-McCann Inc.

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EXECUTIVE SUMMARY

IMPORTANT: *This executive summary provides an overview of the main findings of the study to which it pertains. This executive summary does not provide a comprehensive report, and its review should not be considered a substitute for reading the report in its entirety.*

Omni-McCann Inc. (Omni-McCann) was retained by Lac Ste. Anne County (LSAC) to conduct a Phase I Environmental Site Assessment (ESA) of the Sangudo Raceway in Sangudo, Alberta (herein referred to as the ‘site’). The site location is shown on **Figure 1** in **Appendix A**.

The Phase I ESA was carried out in general accordance with the practices identified in the Canadian Standards Association (CSA) Standard Z768-01: Phase I Environmental Site Assessment (CSA, R2022). It is Omni-McCann’s understanding that the Phase I ESA is required for environmental due diligence purposes to support the planned redevelopment of the site into additional campground space.

Irregularly shaped, the site has been improved with an earthen raceway located centrally on the property. The site has been developed with one permanent structure located along the northern site boundary and historically operated as a concession stand and race official/ announcers building during races.

The results of the Phase I ESA indicate that to varying capacities the site was utilised as a racetrack for approximately 40 to 50 years, including several different orientations of racetrack. No other known usages were observed or reported outside of the potential encroachment of the baseball diamonds to the north prior to one of the more recent reorienting of the racetrack.

The Phase I ESA did not return any evidence of actual contamination at the site, or any evidence of significant individual sources of potential site contamination. The historical operation of a racetrack at the site for a period of 40 to 50 years is identified as a non-point source of potential site contamination.

It is recommended that further investigation (e.g. Phase II ESA) be completed to verify the presence or absence of substance of potential concerns at the site relating to the historical operation of a racetrack at the site to suppose redevelopment activities.



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1 INTRODUCTION

Omni-McCann Inc. (Omni-McCann) was retained by Lac Ste. Anne County (LSAC) to conduct a Phase I Environmental Site Assessment (ESA) of the Sangudo Raceway in Sangudo, Alberta (herein referred to as the 'site'). The site location is shown on **Figure 1** in **Appendix A**.

The Phase I ESA was carried out in general accordance with the practices identified in the Canadian Standards Association (CSA) Standard Z768-01: Phase I Environmental Site Assessment (CSA, R2022). It is Omni-McCann's understanding that the Phase I ESA is required for environmental due diligence purposes to support the planned redevelopment of the site into additional campground space.

1.1 SITE DESCRIPTION

With a total size of approximately 3.9 Ha (9.7 acres), the site constitutes all of *Lot 1, BLK 1, Plan 102 3203, Sangudo, Alberta* the adjoining portions of a road allowance to the north, and the southern-most area of the property legally described as a portion of SW-1-57-7-W5M on title number 213B147 which were historically utilized as part of the Sangudo Raceway. The site does not include the north and central areas of SW-1-57-7-W5M, operated as a baseball field and recreational park.

Irregularly shaped, the site has been improved with an earthen raceway located centrally on the property. The site has been developed with one permanent structure located along the northern site boundary and historically operated as a concession stand and race official/ announcers building during races.

The site is accessed via a gravelled driveway through the recreational park on SW-1-57-7-W5M.

1.2 OBJECTIVES

The objective of the Phase I ESA is to identify sources of actual or potential site contamination associated with the site through a review of available current and historical information pertaining to the site, visual inspection of the site, and interviews with persons familiar with the current and historical use of the site and immediately surrounding properties. In accordance with the CSA standard, the conclusions of the report shall state that the Phase I ESA has revealed:

- No evidence of site contamination;
- Evidence of potential site contamination;
- Evidence of actual site contamination; or,
- Evidence of actual and potential site contamination.



To fulfill the objective, the scope of work consisted of the following activities:

- Historical records review;
- Site visit;
- Interviews of/ information from persons knowledgeable of the site;
- Reviewing and technically assessing the information collected; and,
- Preparing this Phase I ESA report.

The scope of the Phase I ESA is only sufficient in identifying sources of actual or potential site contamination that are obvious from a visual examination of surface features or from other available sources of information. No soil, water, liquid, biological (including mould), gas, product or chemical sampling and analysis were carried out as part of this Phase I ESA. Omni-McCann did not conduct a health and safety, engineering, or structural evaluation of the site as part of the scope of work.



2 METHODOLOGY

The Phase I ESA was conducted following the CSA Standard Z768-01 for Phase I ESAs (CSA, R2022). In addition to the CSA standard, reference was made to the Alberta Environmental Site Assessment Standard (AEP, 2016). This section describes the methods used to conduct the historical records review, site visit, and interview activities.

2.1 HISTORICAL RECORDS REVIEW

The historical records review consisted of requesting and reviewing information available from government, public, and other agencies, or parties. Information was requested from the following sources, where available at the time of reporting:

Agencies

- LSAC Fire Services;
- LSAC Zoning Bylaw;
- National Air Photo Library (NAPL);
- Alberta Aerial Photographic Record System (AAPL);
- Alberta Water Well Information Database (online);
- Alberta Environment and Parks (AEP) through ERIS Environmental Database search (ERIS).

Information Source Documents and Publications

- ERIS Environmental Databases – includes federal, provincial, and private databases;
- Google Earth – Satellite Photography.

Geological and Topographical Information

The following geological mapping resources were reviewed to obtain a general understanding of the regional geological setting:

- Alberta Water Well Information Database (online);
- Alberta Geological Survey, Bedrock Geology of Alberta, Map 600, 2013, 1:1,000,000;
- Alberta Geological Survey, Bedrock Geology of Alberta, Map 601, 2013, 1:1,000,000;
- Alberta Research Council, Quaternary Geology, Central Alberta, Map 213, 1090, 1:500,000; and,



- Alberta Research Council, Surficial Geology, Wabamun Lake, Alberta, NTS 83G, 1:250,000, 1973.

Topographic information was obtained from the Atlas of Canada- Toporama; Natural Resources Canada; accessed January 26, 2024.

2.2 SITE VISIT

A site visit was conducted on January 5, 2024 by Meaghan Blackburn of Omni-McCann. Activities conducted during the site visit included:

- Observation of the property and,
- Observations of the properties adjacent to the site to assess land use, as visible from the site and adjoining public lands.

Photographs taken in support of the site visits are included in **Appendix B**.

2.3 INTERVIEWS

Omni-McCann requested that the client identify the person(s) thought to be most knowledgeable of the history and operations of the site and adjacent lands.

Omni-McCann interviewed Donna Kerr, Community Services Manager for LSAC since 2015. The interview was conducted during the site visit.



3 RESULTS OF RECORD AND REVIEW

3.1 CHAIN OF TITLE SEARCH

Omni-McCann reviewed the current and historic land titles for portion of the site which was utilized as the racetrack from present day to 1962. The results of the land title search indicate that the site is currently owned by LSAC who acquired the site in 2013. Prior to 2013, the site was owned by The Borad of Trustees of Northern Gateway Regional Division No. 10, a school division, who is the first listed owner of the site beginning in 1962.

Reviewed land titles are provided in **Appendix C** for reference.

3.2 ZONING AND MUNICIPAL RECORDS

Zoning and municipal records for the site and adjoining properties were reviewed using the LSAC's Zoning Bylaw and Map.

The majority of the site except for the northern-most portion is zoned *CL – County Land*, a district intended to provide suitable land for recreational uses and developments throughout the county, including sports, water, leisure related activities and related uses. The northern-most portion of the site and properties to the north are zoned *CREC – Commercial Recreation*, a district intended to accommodate commercial land uses and applications that are fundamentally recreational in their operation and service.

3.3 MUNICIPAL DIRECTORIES

No municipal directories exist for Sangudo or LSAC.

3.4 AERIAL PHOTOS

Aerial photos were retrieved for select years between 1924 and 2021. Results of the aerial photo review are presented in **Table 1** below.



Table 1. Summary of Aerial Photos

Year	Source & Scale	Observations
1925	NAPL 1:15,000	The site is vacant and undeveloped land. A railway embankment similar to present day and subsequent bridge are present south and southwest of the site. An earthen trail/ path is visible along the northern site boundary leading to the Pembina River and may be part of a river crossing system based on an observable trail on the opposite bank of the river. Some development within the village of Sangudo is visible approximately 500 m southeast of the site.
1951	APRS 1:15,840	The site remains vacant and appears generally similar to the 1925 aerial photo with the exception of the potential trail and river crossing noted in 1925 which appears to be unused and a more established road and river crossing is established further to the north. Surrounding properties have continued to be developed including further development within Sangudo east-southeast of the site and a paved roadway in the same general orientation of 53 Avenue which crosses the Pembina River approximately 375 m north-northeast of the site.
1961	APRS 1:15,840	The aerial photo covers the eastern two-thirds of the site which appears largely vacant and similar to the 1951 aerial photo with no signs of obvious development or site improvements visible. Surrounding properties appear generally similar to 1951 with the exception of the former bridge and northern portion of the roadway for 53 Avenue which has been decommissioned and is no longer visible. There is a small homestead/ farmyard present at the north end of the campground north of the site.
1972	APRS 1:12,000	The site has been developed with a triangular earthen racetrack which appears to be associated with a baseball diamond immediately to the north and a wider oval earthen racetrack to the north. Several smaller outbuildings are present at the north end of the baseball diamond (i.e. off-site). Surrounding properties appear general similar to the 1961 aerial photo with the exception of a suspected school east of the site.
1977	APRS 1:10,000	The site and surrounding properties appear generally similar to the 1972 aerial photo with the exception of the former racetrack north of the site which has been redeveloped as a baseball diamond.
1984	APRS 1:15,000	The racetrack at the site has been redeveloped to an irregular oval/ rectangular shape extending into the former outfield of the adjacent baseball diamond which has ben reoriented. A small white building or vehicle is noted within the racetrack along an interior lane. Notable changes to neighbouring properties include: <ul style="list-style-type: none"> • Construction of an arena northeast of the site similar to present day • Clearing of a forested area immediately northeast of the site • Construction of a series of roadways/ lanes on the parklands north of the site



Table 1. Summary of Aerial Photos

Year	Source & Scale	Observations
		<ul style="list-style-type: none"> Construction of several small buildings southwest of the arena, between the arena and baseball diamonds
1990	APRS 1:10,000	<p>The raceway track at the site is notably less pronounced, though vehicle tracks are visible indicating a circular motion, however, no definitive outline of the raceway is noted.</p> <p>Notable changes to surrounding properties include:</p> <ul style="list-style-type: none"> Construction of a square concession/ washroom building west of the baseball diamonds similar to present day Construction of a series of camper trailer parking areas northwest of the concession stand similar to present day
1997	APRS 1:20,000	<p>The site has been redeveloped with an oval racetrack similar to present day including an inner fenced area, three sets of bleachers and concession/ race official building north of the track. A smaller white building is noted south of the northern straightaway.</p> <p>Surrounding properties appear generally similar to the 1990 aerial photo with the exception of a picnic shelter north of the site near the closest baseball diamond.</p>
2004	Google Earth Variable Scale	<p>The site and surrounding properties appear generally similar to the 1997 aerial photo with the exception of several potential vehicles or buildings present near the northwest corner of the site. Due to the resolution of the image the details of the objects are not readily apparent.</p>
2012	Google Earth Variable Scale	<p>The site and surrounding properties appear generally similar to the 2004 aerial photo with the following exceptions:</p> <ul style="list-style-type: none"> The small building inside the racetrack has been removed. Several pads/ areas cleared of vegetation are noted along the inside of the inside fence of the racetrack. The bleachers have been replaced with six smaller sets of bleachers similar to present day.
2016	Google Earth Variable Scale	<p>The site and surrounding properties appear generally similar to the 2012 photo with the exception of the addition of another set of bleachers west of the previous bleachers.</p>
2021	Google earth Variable Scale	<p>The site and surrounding properties appear generally similar to the 2016 aerial photo in orientation, however, the track now appears grassed and may no longer be in regular usage. Interior areas of the track which were observed to have been previously cleared of vegetation have also been revegetated.</p>

Based on the aerial photos and satellite imagery reviewed as summarized above, the site and surrounding areas were used primarily for recreational purposes beginning in about 1972.



Throughout the majority of the site's lifespan, it has been utilized as a raceway, including several different orientations of track. No evidence of actual site contamination was noted during the review of aerial photographs, however, it is noted that the longstanding usage of the site as a raceway may have resulted in incidental releases over time following vehicular crashes, refuelling or servicing operations.

3.5 FIRE RECORDS

3.5.1 FIRE INSURANCE PLANS

No fire insurance plans are known to exist for the site or the village of Sangudo.

3.5.2 FIRE DEPARTMENT RECORDS

Omni-McCann contacted Lac Ste. Anne County Fire Services via email to inquire about records relating to the site. In response to the request, Mr. Randy Schroeder, County Fire Chief confirmed:

- Fire Services does not have any records of fuel storage or releases at the site.
- Fire services does not have any records of emergency responses at the site including fire, spill response, or medical.
- Prior to regionalization (in 2003) of Fire Services, the Sangudo volunteer fire department did commonly post a truck at the site on race days, however, no records of responses were maintained. It was noted that when the fire department did not attend, volunteers or contracted fire control services were present.
- Through consultation with the District Chief of Station 4 who reportedly was commonly in attendance at the races, no firefighting foam or water was used at the site. ABC dry chemical extinguishers were reportedly kept on hand in the event of a fire, though no deployment was reported.
- One house fire in the vicinity was reported "across from the arena" (over 200 m from the site) approximately 15 to 20 years ago, and one grass fire was reported in 2011. No records of Class A foam usage were returned.

The responses from Fire Services are not considered indicative of any potential site contamination.

3.6 REGIONAL GEOLOGY AND TOPOGRAPHY

Information from the geological resources referenced in Section 2.1 suggested the following:



- The bedrock in the area of the site is expected to be of the Wapiti Formation, consisting of gray sandstone, mudstone and bentonite with scattered coal beds. Drift overlying the bedrock may be up to 60 m thick based on geologic mapping.
- Surficial geology at the site is expected to consist of fluvial deposits originating from the Pembina River immediately west of the site. Soils are expected to be fine-grained sand, silt and clay, with minor gravel beds.
- The site is expected to be present at an elevation of approximately 670 to 660 m above sea level (masl). Regional topography tends to be graded towards the Pembina River immediately west of the site.

3.7 PREVIOUS ENVIRONMENTAL REPORTS

Omni-McCann was not provided with any previously completed environmental reports nor was the site representative aware of any.

3.8 AGENCY INFORMATION

3.8.1 ALBERTA ENVIRONMENT AND PROTECTED AREAS (AEPA)

A search of AEPA's databases was included in the ERIS search. Refer to the results of the ERIS search below.

3.8.2 ENVIRONMENTAL RISK INFORMATION SERVICES (ERIS)

ERIS was contracted to conduct a search of federal and provincial government and private environmental databases pertaining to the site and surrounding properties. A copy of the report obtained from ERIS is included in **Appendix D**.

No records were returned relating to the site. A total of 32 plottable off-site records were identified, including:

- 21 Authorizations issued by AEPA.
- 11 Water Well Records.

All returned water well records relate to properties north of the site with all but one of the well records relating to SW-1-57-7-W5M. Based on the content of the records, they relate to domestic and/or stock water supply wells and a series of test holes that appear to relate to the bridge previously located northeast of the site. Based on the content of the well records they are not considered indicative of potential site contamination.



The majority (15 of 21) of the Authorization records contained a hyperlink to the authorization documents which confirmed the permits were for water withdrawal from the Pembina River for dust suppression and/or construction purposes. The Authorization records which did not contain a hyperlink were titled generally similar to the other records and as such are not considered indicative of potential site contamination.

No unplottable records were returned within the ERIS report.

3.9 GOVERNMENT OF ALBERTA WATER WELL DATABASE

Omni-McCann retrieved the 11 well records listed in the ERIS report from Alberta's online water well database. Geologic information from the well records indicates the site is most likely underlain by brown clay with the most consistent sand/ fine gravel layer noted at approximately 15 m below ground surface. The reported depths to bedrock are variable but are commonly first reported at depths between 20 and 35 m below ground surface.



4 RESULTS OF SITE VISIT

Meaghan Blackburn of Omni-McCann carried out a site visit on January 5, 2024 to visually assess the site and publicly accessible areas of the adjacent properties.

Photographs taken in support of the site visit are included in **Appendix B**.

4.1 GENERAL SITE DESCRIPTION

The site is located in the most westerly portion of Sangudo, Alberta within Lac Ste. Anne County in an area utilized primarily for recreational purposes. At the time of the visit, the site was vacant with the exception of one larger building previously utilized as a concession and race official/announcer's building and several smaller portable buildings previously used for registrations. A small fabric-covered building was also noted in the northwest corner of the site.

At the time of the site visit, two sets of bleachers remained east of the concession building and the remaining bleachers had been relocated to the interior of the former racetrack which was covered with vegetation and grasses (noted: the site inspection was completed in winter months and as such all vegetation was noted as dormant).

Location and details of the site and surrounding areas are shown on **Figure 2, Appendix A**.

4.2 SITE STRUCTURES

4.2.1 CURRENT SITE STRUCTURES

The site is currently improved with four structures, including the two small portable structures and the fabric covered building. The primary on-site building, the concession stand and race official/announcer's building is a slab-on-grade, wood-framed structure with vinyl siding and a steel roof. The site representative indicated that the site building was "well over 25 years old" (i.e. constructed prior to 1999). It is noted that based on aerial photo reviews the buildings were first observed at the site in 1997 and were not present in 1990.

It was reported to Omni-McCann that all on-site buildings are scheduled to be demolished as part of the site redevelopment process.

4.2.2 HISTORICAL SITE STRUCTURES

One vacant concrete pad was observed in the interior of the racetrack. The site representative was unaware of any historical structure which may have been constructed on the pad. Based on



reviewed records a small building was noted in the general vicinity of the pad in the 1997 and 2004 aerial photos.

4.3 SITE OPERATIONS

4.3.1 CURRENT SITE OPERATIONS

The site is currently vacant and slated for redeveloped by LSAC as part of a planned expansion for the campground to the north.

4.3.2 HISTORICAL SITE OPERATIONS

It was reported to Omni-McCann that the site was operated as the Sangudo Speedway until approximately 2018, and that no other operations have occurred at the site. Through an on-line search, Omni-McCann was able to locate several videos and images taken during races at the site in 2019, however, no more recent images or records of site operations were found. This generally aligns with the reports from the site representative.

It was reported to Omni-McCann that as part of the site's historical operations, spectators would be present north of the racetrack in the vicinity of the bleachers and concession stands, with the interior of the track area utilized for "pit stops" vehicle maintenance, etc.

The site representative was unaware of when the site was first utilized as a racetrack. Based on reviewed records, the current orientation of the raceway appears to have been constructed in the 1990's, however, several iterations of racetrack were present at the site as early as the 1970's.

4.4 EXTERIOR AREAS

Exterior areas of the site were primarily vegetated at the time of the site visit. The outline of the racetrack was apparent based on local grading, however, most of the guard rails and barriers previously utilized as part of the racetrack had been removed at the time of the site visit.

4.5 NEIGHBOURING & ADJOINING PROPERTIES

A summary of adjacent property usages is provided below in **Table 2** below.

Table 2. Summary of Neighbouring Parties

Direction	Neighbouring & Adjoining Properties
North	Baseball diamonds and campground. Arena further to the northeast



Direction	Neighbouring & Adjoining Properties
East	Sangudo Community School
South	Railway line & embankment
West	Pembina River

4.6 TOPOGRAPHIC, GEOLOGIC & HYDROGEOLOGIC SETTINGS

The local natural topography appears to be generally flat lying with a general grading towards the Pembina River west of the site, however, topography around the site has been significantly altered, including construction of the racetrack on-site, the railway embankment south of the site, and the baseball diamonds north of the site. Overall surface drainage at the site appeared moderate to good with no significant areas of standing water noted.

No exposed soil inferred as native, or evidence of groundwater or bedrock was observed.

4.7 SPECIAL ATTENTION SUBSTANCES

CSA Standard Z768-01 identifies five special attention substances for which the potential presence must be assessed during the Phase I ESA:

- Polychlorinated biphenyls (PCBs);
- Asbestos containing materials (ACMs);
- Lead;
- Ozone depleting substances (ODSs); and,
- Urea foam formaldehyde insulation (UFFI).

4.7.1 POLYCHLORINATED BIPHENYLS (PCBS)

The manufacture of PCBs in North America was prohibited under the Toxic Substances Control Act (1977). Their use as a constituent in new products manufactured in or imported into Canada was prohibited by regulations in 1977 and 1980. As such, sites developed or significantly renovated after 1980 are unlikely to have PCB containing equipment.

Under the presumption that the on-site buildings were constructed at the site between 1990 and 1997, no PCB's are expected to be present in the buildings.



4.7.2 ASBESTOS CONTAINING MATERIALS (ACMS)

Asbestos-containing materials (ACMs) are fibrous hydrated silicates and can be found in building materials as either “unbound” or “bound” asbestos. Friable asbestos refers to materials where the asbestos fibers can be separated from the material with which it is associated. Non-Friable asbestos refers to asbestos that is associated with a binding agent (such as tar or cement). Friable asbestos is commonly found in boiler and pipe insulation. Non-Friable asbestos is typically found in roofing tars, floor and ceiling tiles, and asbestos cement. The use of ACMs was generally discontinued in Canada in the late 1980s, although friable asbestos can still be found in recently constructed buildings.

Under the presumption that the on-site buildings were constructed at the site between 1990 and 1997, no ACM’s are expected to be present in the buildings.

4.7.3 LEAD

In the past, lead was frequently used in oil-based paints, roofing materials, cornices, tank linings, electrical conduits and soft solders for tinsplate and plumbing. The use of lead-based paints began to be phased out beginning in 1976. However, paint that was produced or used between 1976 and 1990 may contain small amounts of lead. Paint that was produced or used prior to 1950 may contain high levels of lead.

Under the presumption that the on-site buildings were constructed at the site between 1990 and 1997, the potential for lead-based paint to be present in the on-site buildings is considered low.

4.7.4 OZONE DEPLETING SUBSTANCES (ODSS)

Freons and halons are often comprised of Chlorofluorocarbons (CFCs), which were banned from production in Canada in 1996. The use of these materials is still permitted but equipment must be serviced by a licensed contractor such that CFCs are contained and not released to the environment during servicing or operation.

No potential ODS-containing equipment was noted at the site.

4.7.5 UREA FORMALDEHYDE FOAM INSULATION (UFFI)

UFFI was formerly sprayed into cavities of walls and above ceilings as an insulating material. UFFI was first introduced as a common insulating product in Canada in the 1970s and since discontinued from commercial use since the early 1980s.



Under the presumption that the on-site buildings were constructed at the site between 1990 and 1997, no UFFI is expected to be present in the on-site buildings.

4.8 CHEMICAL USE AND STORAGE

No chemical use or storage was observed on or near the site at the time of the site visit. Based on the past usages of the site (i.e. a racetrack) historical use and temporary storage of various automotive fuels, lubricants, etc. is expected to have occurred at the site.

The site representative was unaware of specific volumes or usage locations but noted that the interior area of the track was used as a “pit” area during races. Activities within the pit are likely to have included the fueling of vehicles from portable fuel tanks (e.g. jerry cans, slip tanks, etc.). Activities may have also included the use of oils, coolants, etc. No structured, on-going maintenance or fueling activities were reported to have occurred at the site.

4.9 DRAINS AND SUMPS

No drains or sumps were observed or reported at the site.

4.10 STORAGE TANKS AND CONTAINERS

No evidence of current or historical storage tanks or containers was observed or reported at the site.

4.11 SPILLS AND RELEASES

No evidence of recent spills or releases, or reports of historical spills or releases were returned during the site visit. Notwithstanding the previous commentary, it is likely that incidental releases did occur at the site, however, the exact location and volume of releases is not known.

4.12 GENERAL UTILITY SERVICES

The site has historically been serviced with electric power via overhead lines. It was reported to Omni-McCann that electrical services have been disconnected to reduce overhead costs at the site.



4.13 POTABLE WATER SUPPLY

No permanent potable water system is present at the site. During past race events at the site, it was reported to Omni-McCann that patrons had access to the off-site washrooms located at the north adjacent baseball diamonds/ campgrounds.

Based on records returned as part of the ERIS records search, on-site needs for a water supply (e.g. dust suppression on the racetrack) is to have been drawn directly from the Pembina River to the west.

4.14 WATER SUPPLY WELLS

No water supply wells were observed during the site visit or reported by the site representatives. No water well records were returned within 250 m of the site as part of the ERIS records search.

4.15 WATERCOURSES, DITCHES, OR STANDING WATER

No water courses, ditches, or significant standing water were observed on-site. As previously noted, the Pembina River is located directly adjacent to the western site boundary.

4.16 STORM WATER AND SANITARY DISCHARGES

No permanent storm or sanitary sewer systems were observed or reported at the site. During historical race events the patrons would have reportedly been able to access washrooms at the baseball diamonds/ campground north of the site, along with on-site portable washrooms.

Stormwater generated at the site is expected to have either infiltrated the subsurface or followed local topography towards the Pembina River.

4.17 SOLID WASTE GENERATION, STORAGE & DISPOSAL

No solid waste is currently expected to be generated at the site. Solid waste generated on site is during previous events was removed by a third party disposal company for off-site disposal.

4.18 AIR EMISSIONS

No operations or odours were observed on-site that would suggest significant air emissions to the surrounding environment.



4.19 SITE APPEARANCE

Overall, the site appeared in generally good condition with no areas of obvious staining or vegetative stress observed in exterior areas. It is noted that the site visit was conducted during the winter and while no ground cover (i.e. snow) was present, much of the vegetation was in a dormant state.



5 RESULTS OF INTERVIEW

As noted in Section 2.3, Omni-McCann interviewed Donna Kerr, Community Services Manager for LSAC since 2015.

Commentary from Ms. Kerr has been included where applicable throughout the previous sections of the report.



6 EVALUATION OF FINDINGS

The results of the Phase I ESA indicate that to varying capacities the site was utilised as a racetrack for approximately 40 to 50 years, including several different orientations of racetrack. No other known usages were observed or reported outside of the potential encroachment of the baseball diamonds to the north prior to one of the more recent reorienting of the racetrack.

No evidence of actual site contamination or known large-volume releases, permanent chemical (i.e. fuel) storage, or other definitive sources of potential site contamination was returned as part of the records review, interview or site visit portions of the Phase I ESA. However, the longstanding usage of the site as a racetrack has the potential to have resulted in a series of incidental releases, either during the routine fueling and maintenance of racing vehicles or as a result of incidental releases during on-track accidents. It is noted that most modern racing vehicles are typically equipped with fuel shut-off systems which would prevent excessive releases in the event of a rollover, however, given the length of time the site has been in operation there is the potential for releases to have occurred due to impacts which damaged fuel systems or prior to the implementation of fuel shut off systems.

It is further noted that recent AEPA approvals indicate that water from the Pembina River has been used for dust suppression on the racetrack. While the use of general oil for dust suppression is not typically used in the present day, the potential for it's historical use exists.

Overall, the site appeared to be in acceptable environmental condition, and no specific areas of potential environmental concern were identified during the Phase I ESA. Understanding that LSAC is planning on redeveloping the site for future usages as campsites, consideration should be given to a general characterization of the environmental quality of the site via standardized sampling of surface soils (i.e. soils most likely to have been impacted from incidental releases at surface) and a limited assessment of groundwater quality in the areas of the site where chemical use would have been most likely to occur (i.e. the interior of the racetrack). This assessment could be used to support the planning of excess soil handling/ disposal requirements and/or potential capping requirements of soils left on-site if low- to moderate-level impacts are returned.



7 CONCLUSIONS AND RECOMMENDATIONS

The results of the Phase I ESA did not return any evidence of actual contamination at the site, or any evidence of significant individual sources of potential site contamination. The historical operation of a racetrack at the site for a period of 40 to 50 years is identified as a non-point source of potential site contamination.

It is recommended that further investigation (e.g. Phase II ESA) be completed to verify the presence or absence of substance of potential concerns at the site relating to the historical operation of a racetrack at the site to support redevelopment activities.



8 QUALIFICATIONS OF ASSESSORS

This Phase I ESA was conducted by Meaghan Blackburn, B.Sc., and Grant Barker, P.Geo.

Meaghan is Omni-McCann’s Regional Director for Alberta and has been conducting environmental assessment, monitoring, and compliance work throughout Alberta for over 10 years. As a project manager and scientist, Meaghan is experienced in the identification of potentially contaminating activities, technical assessment of data, and report writing.

Grant is a Professional Geoscientist licensed with the Association of Professional Engineers & Geoscientists of Alberta (APEGA), Professional Engineers & Geoscientists of Saskatchewan (APEGS), Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG), and the Association of Professional Geoscientists of Ontario (PGO). As both a project manager and technical advisor, Grant is experienced in contaminated site assessment and remediation and the environmental compliance process for greenfield and brownfield industrial sites.



9 LIMITATIONS

This report was prepared exclusively for the purposes, project and site locations outlined in the report. The report is based on information provided to, or obtained by Omni-McCann, as indicated in the report, and applies solely to site conditions existing at the time of the site investigation. Although a reasonable investigation was conducted by Omni-McCann, Omni-McCann's investigation was by no means exhaustive and cannot be construed as a certification of absence of any contaminants from the site. Rather, Omni-McCann's report represents a reasonable review of available information within an established work scope, schedule and budget. It is therefore possible that currently unrecognized contamination or potentially hazardous materials may exist at the site, and the levels of contamination or hazardous materials may vary across the site. Further review and updating of the report may be required as local and site conditions, and the regulatory and planning frameworks, change over time.

This report was prepared by Omni-McCann for the benefit of Lac Ste. Anne County. The material in it reflects Omni-McCann's judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Omni-McCann accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Respectfully Submitted,

Omni-McCann Inc.
Permit to Practice No. P14798

Meaghan Blackburn, B.Sc.
Regional Director, Alberta

Grant Barker, P. Geo.
President, Responsible Member



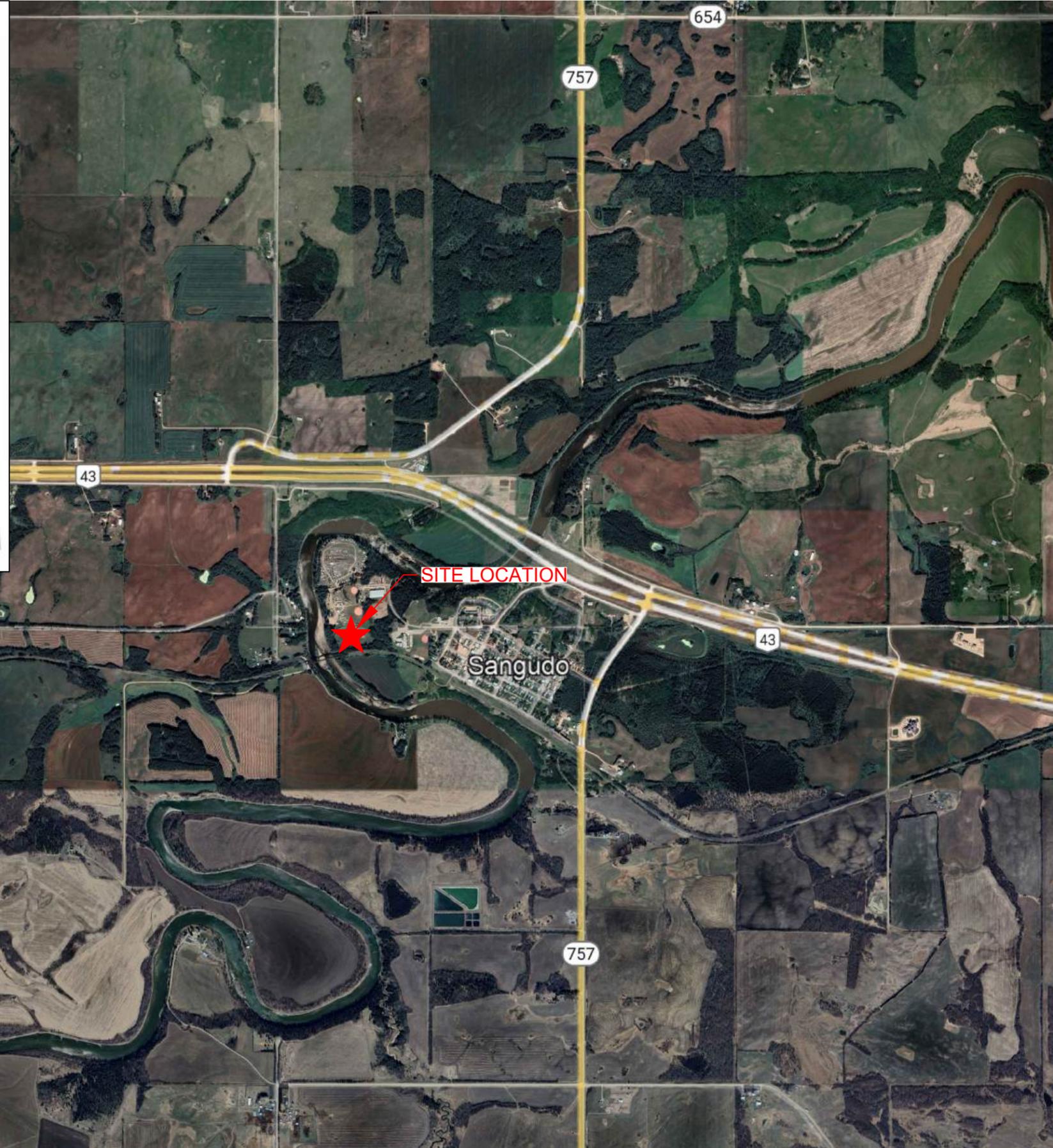
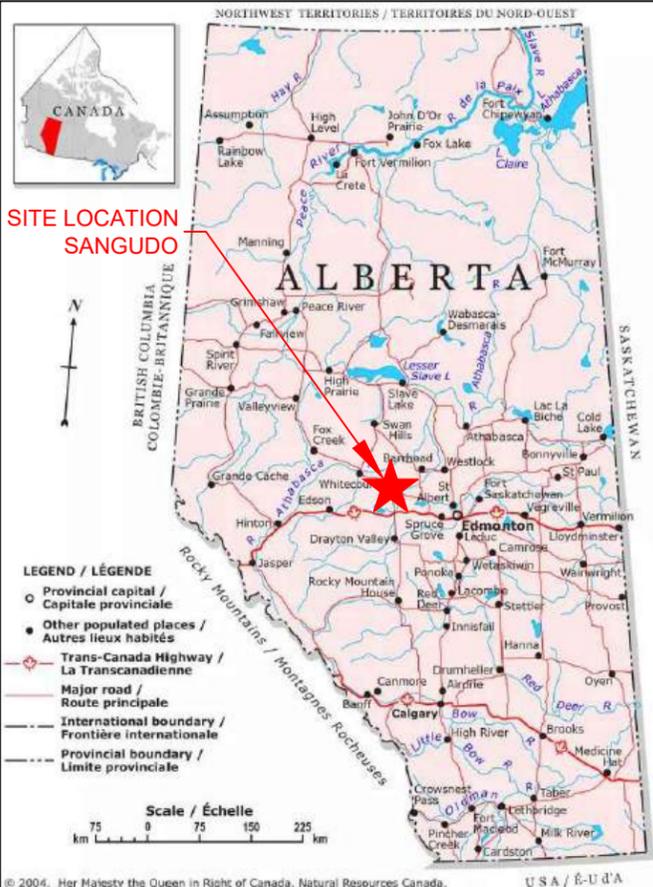
10 REFERENCES

- AEP. (2016). *Alberta Environmental Site Assessment Standard*. Edmonton: Alberta Environment and Parks (AEP).
- CSA. (R2022). CAN/CSA-Z768-01: Phase I Environmental Site Assessment. Canadian Standards Association.



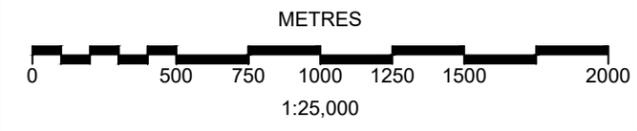
APPENDIX A

Figures



**LAC STE ANNE COUNTY
SANGUDO RACEWAY**
PROJECT NO. 0199-0101
S.W SEC. 1-57-7-W5M, SANGUDO, AB.
**PHASE I ENVIRONMENTAL
SITE ASSESSMENT**

FEBRUARY, 2024



Legend

★ SITE LOCATION

FIGURE 1
SITE LOCATION



C:\Users\MonaGenovey\Omni-McCann Geoscience\Omni-McCann - Omni-McCann\Projects\0199 - LSA County\01 - Sangudo Raceway\01 - PH I ESA-FIG 1.dwg 2024/02/01 8:40:38 AM Mona Genovey

C:\Users\MonaGenovey\Omni-McCann\Geoscience\Omni-McCann - Omni-McCann\Projects\0199 - LSA County\01 - Sangudo Raceway\01 - Sangudo Raceway\01 - PH I ESA-FIG 2.dwg
2024/02/01 8:49:22 AM Mona Genovey

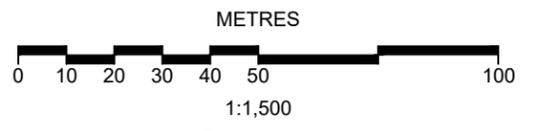


IMAGERY SOURCE AND DATE: GOOGLE EARTH 8/6/2021

LAC STE ANNE COUNTY SANGUDO RACEWAY PROJECT NO. 0199-0101

S.W. SEC. 1-57-7-W5M, SANGUDO, AB.
**PHASE I ENVIRONMENTAL
SITE ASSESSMENT**

FEBRUARY, 2024



Legend

 SITE BOUNDARY

FIGURE 2
SITE PLAN





APPENDIX B

Site Photographs



Photo 1. Looking east across northern site boundary



Photo 2. Looking northeast from northwest site boundary



Photo 3. Looking west from northwest corner of site.



Photo 4. Looking south from south-central area of site.



Photo 5. Looking west at south elevation of main on-site building and flagwaver catwalk



Photo 6. Exterior of concession side of main building



Photo 7. Interior of concession space



Photo 8. Concrete slab in interior of track area



Photo 9. Looking south at northwest corner of racetrack berms



Photo 10. Looking west in interior area of track



APPENDIX C

Title Search Results

Preview

S		
LINC	SHORT LEGAL	TITLE NUMBER
0021 134 242	5;7;57;1;SW	213B147

LEGAL DESCRIPTION

ALL THAT PORTION OF THE SOUTH WEST QUARTER OF SECTION ONE (1)
 TOWNSHIP FIFTY SEVEN (57)
 RANGE SEVEN (7)
 WEST OF THE FIFTH MERIDIAN
 BOUNDED AS FOLLOWS:- ON THE SOUTH BY THE SOUTH BOUNDARY OF THE SAID
 QUARTER SECTION ON THE WEST BY THE RIGHT BANK OF THE PEMBINA RIVER
 AS SHOWN ON A PLAN OF SURVEY OF THE SAID TOWNSHIP SIGNED AT OTTAWA
 ON THE 2 DAY OF JUNE A.D. 1909 ON THE NORTH BY THE SOUTHERLY LIMITS
 OF THE ROAD AS SHOWN ON ROAD PLAN 4973HW AND ON THE EAST BY THE WEST
 LIMIT OF THE ROAD AS SHOWN ON ROAD PLAN 3526EU CONTAINING 7.34
 HECTARES (18.15 ACRES) MORE OR LESS
 EXCEPTING THEREOUT: (A) 0.210 HECTARES (0.52 ACRE) MORE OR LESS
 SUBDIVIDED UNDER PLAN 7520663
 (B) 0.700 HECTARES (1.73 ACRES) MORE OR LESS SUBDIVDED UNDER
 PLAN 7621069
 EXCEPTING THEREOUT ALL MINES AND MINERALS

ESTATE: FEE SIMPLE

MUNICIPALITY: LAC STE. ANNE COUNTY

REGISTRATION	DATE(DMY)	REGISTERED OWNER(S)		VALUE	CONSIDERATION
		DOCUMENT	TYPE		
213B147	04/11/1953			\$110	

[Close](#)

Preview

S
LINC SHORT LEGAL TITLE NUMBER
0034 331 009 1023203;1;1 132 062 382

LEGAL DESCRIPTION
PLAN 1023203
BLOCK 1
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 2.95 HECTARES (7.29 ACRES) MORE OR LESS

ESTATE: FEE SIMPLE
ATS REFERENCE: 5;7;56;36;NW

MUNICIPALITY: LAC STE. ANNE COUNTY

REFERENCE NUMBER: 102 163 849

REGISTERED OWNER(S)				
REGISTRATION	DATE(DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
132 062 382	04/03/2013	TRANSFER OF LAND	\$61,400	NIL

[Close](#)

Preview

S		
LINC	SHORT LEGAL	TITLE NUMBER
0022 416 044	5;7;57;1;SW	752 023 886

LEGAL DESCRIPTION

MERIDIAN 5 RANGE 7 TOWNSHIP 57
SECTION 1

ALL THAT PORTION OF THE ORIGINAL GOVERNMENT ROAD ALLOWANCE
ADJOINING THE SOUTH BOUNDARY OF THE SOUTH WEST QUARTER
WHICH LIES EAST OF THE RIGHT BANK OF THE PEMBINA RIVER AND
WHICH LIES WEST OF A LINE DRAWN SOUTHERLY AND AT RIGHT ANGLES
TO THE SOUTH BOUNDARY OF THE THE SAID SOUTH WEST QUARTER
OF SECTION 1 THROUGH THE POINT OF INTERSECTION OF THE SAID
SOUTH BOUNDARY WITH THE SOUTH WESTERLY LIMIT OF ROAD PLAN 3526EU
CONTAINING .930 OF A HECTARE (2.3 ACRES) MORE OR LESS
EXCEPTING THEREOUT:

0.34 OF AN ACRE MORE OR LESS

SUBDIVIDED UNDER PLAN 7520663

EXCEPTING THEREOUT ALL MINES AND MINERALS

ESTATE: FEE SIMPLE

MUNICIPALITY: LAC STE. ANNE COUNTY

REGISTERED OWNER(S)				
REGISTRATION	DATE(DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
752 023 886	11/03/1975			

[Close](#)



LAND TITLE CERTIFICATE

S
LINC SHORT LEGAL TITLE NUMBER
0034 331 009 1023203;1;1 132 062 382

LEGAL DESCRIPTION
PLAN 1023203
BLOCK 1
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 2.95 HECTARES (7.29 ACRES) MORE OR LESS

ESTATE: FEE SIMPLE
ATS REFERENCE: 5;7;56;36;NW

MUNICIPALITY: LAC STE. ANNE COUNTY

REFERENCE NUMBER: 102 163 849

REGISTERED OWNER(S)					
REGISTRATION	DATE (DMY)	DOCUMENT	TYPE	VALUE	CONSIDERATION
132 062 382	04/03/2013	TRANSFER OF LAND		\$61,400	NIL

OWNERS

LAC STE. ANNE COUNTY.
OF 4928 LANGSTON STREET
BOX 219
SANGUDO
ALBERTA T0E 2A0

ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION
NUMBER DATE (D/M/Y) PARTICULARS

NO REGISTRATIONS

TOTAL INSTRUMENTS: 000

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN
ACCURATE REPRODUCTION OF THE CERTIFICATE OF
TITLE REPRESENTED HEREIN THIS 31 DAY OF
JANUARY, 2024 AT 04:48 P.M.

ORDER NUMBER: 49611062

CUSTOMER FILE NUMBER:



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OR TECHNICAL EXPERTISE FOR THE BENEFIT OF CLIENT(S).



HISTORICAL LAND TITLE CERTIFICATE
CURRENT TITLE WITH HISTORICAL DATA

S
LINC SHORT LEGAL TITLE NUMBER
0034 331 009 1023203;1;1 132 062 382

LEGAL DESCRIPTION
PLAN 1023203
BLOCK 1
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 2.95 HECTARES (7.29 ACRES) MORE OR LESS

ESTATE: FEE SIMPLE
ATS REFERENCE: 5;7;56;36;NW

MUNICIPALITY: LAC STE. ANNE COUNTY

REFERENCE NUMBER: 102 163 849

REGISTERED OWNER(S)					
REGISTRATION	DATE (DMY)	DOCUMENT	TYPE	VALUE	CONSIDERATION
132 062 382	04/03/2013	TRANSFER OF LAND		\$61,400	NIL

OWNERS

LAC STE. ANNE COUNTY.
OF 4928 LANGSTON STREET
BOX 219
SANGUDO
ALBERTA T0E 2A0

ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION
NUMBER DATE (D/M/Y) PARTICULARS

NO REGISTRATIONS

TOTAL INSTRUMENTS: 000

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN
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TITLE REPRESENTED HEREIN THIS 31 DAY OF
JANUARY, 2024 AT 04:49 P.M.

ORDER NUMBER: 49611062

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HISTORICAL LAND TITLE CERTIFICATE
TITLE CANCELLED ON MARCH 04, 2013

S
LINC SHORT LEGAL TITLE NUMBER
0034 331 009 1023203;1;1 102 163 849

LEGAL DESCRIPTION
PLAN 1023203
BLOCK 1
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 2.95 HECTARES (7.29 ACRES) MORE OR LESS

ESTATE: FEE SIMPLE
ATS REFERENCE: 5;7;56;36;NW

MUNICIPALITY: LAC STE. ANNE COUNTY

REFERENCE NUMBER: 92F192

REGISTERED OWNER(S)					
REGISTRATION	DATE (DMY)	DOCUMENT	TYPE	VALUE	CONSIDERATION
102 163 849	14/05/2010	SUBDIVISION	PLAN		

OWNERS

THE BOARD OF TRUSTEES OF NORTHERN GATEWAY REGIONAL DIVISION NO. 10.
OF P.O.BOX 840, 4104 KEPLER STREET
WHITECOURT
ALBERTA T7S 1M8

ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION	DATE (D/M/Y)	PARTICULARS
NUMBER		
132 062 382	04/03/2013	TRANSFER OF LAND OWNERS - LAC STE. ANNE COUNTY. 4928 LANGSTON STREET BOX 219 SANGUDO ALBERTA T0E2A0 NEW TITLE ISSUED

TOTAL INSTRUMENTS: 001

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN
ACCURATE REPRODUCTION OF THE CERTIFICATE OF
TITLE REPRESENTED HEREIN THIS 31 DAY OF
JANUARY, 2024 AT 04:48 P.M.

ORDER NUMBER: 49611062

CUSTOMER FILE NUMBER:



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OR TECHNICAL EXPERTISE FOR THE BENEFIT OF CLIENT(S).



HISTORICAL LAND TITLE CERTIFICATE

TITLE CANCELLED ON MAY 14, 2010

S
LINC SHORT LEGAL TITLE NUMBER
0016 321 656 5;7;56;36;NW 92F192

LEGAL DESCRIPTION

ALL THAT PORTION OF THE NORTH WEST QUARTER OF SECTION THIRTY SIX (36)
TOWNSHIP FIFTY SIX (56)
RANGE SEVEN (7)
WEST OF THE FIFTH MERIDIAN, WHICH LIES TO THE EAST OF THE
RIGHT BANK OF THE PEMBINA RIVER AS SHOWN ON A PLAN OF SURVEY
OF THE SAID TOWNSHIP SIGNED AT OTTAWA ON THE 7TH DAY OF OCTOBER
A.D. 1910, AND NORTH OF THE NORTHERLY BOUNDARY OF THE RIGHT OF
WAY AND EXTRA RIGHT OF WAY OF THE PEACE RIVER BRANCH OF THE
CANADIAN NORTHERN WESTERN RAILWAY AS SAID RIGHT OF WAY IS SHOWN
ON RAILWAY PLAN 6276BB
EXCEPTING THEREOUT: ALL THAT PORTION SHOWN AS PARCEL (A) ON
FILED PLAN 2241EO CONTAINING 0.049 HECTARES (0.122 ACRES)
MORE OR LESS.
EXCEPTING THEREOUT ALL MINES AND MINERALS

ESTATE: FEE SIMPLE

MUNICIPALITY: LAC STE. ANNE COUNTY

REGISTERED OWNER(S)				
REGISTRATION	DATE (DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
92F192	25/04/1962		\$6,000	

OWNERS

THE BOARD OF TRUSTEES OF NORTHERN GATEWAY REGIONAL DIVISION NO. 10.
OF P.O.BOX 840, 4104 KEPLER STREET
WHITECOURT
ALBERTA T7S 1M8
(DATA UPDATED BY: CHANGE OF NAME 992086126)
(DATA UPDATED BY: 992135005)

REGISTRATION

NUMBER	DATE (D/M/Y)	PARTICULARS
992 086 126	08/04/1999	CHANGE OF NAME THE BOARD OF TRUSTEES OF NORTHERN GATEWAY REGIONAL SCHOOL DIVISION NO.10 P.O.BOX 840, 4104 KEPLER STREET WHITECOURT ALBERTA T7S1M8 AFFECTS INSTRUMENT: 92F192
992 135 005	20/05/1999	CORRECTION OF TITLE AFFECTS INSTRUMENT: 92F192 "PARTY NAME CHANGED FROM: THE BOARD OF TRUSTEES OF NORTHERN GATEWAY REGIONAL SCHOOL DIVISION NO.10 TO: THE BOARD OF TRUSTEES OF NORTHERN GATEWAY REGIONAL DIVISION NO. 10"
102 163 849	14/05/2010	SUBDIVISION PLAN 1023203 TITLE CANCELLED IN FULL

TOTAL INSTRUMENTS: 003

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN
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ORDER NUMBER: 49611062

CUSTOMER FILE NUMBER:



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APPENDIX D

ERIS Report



DATABASE REPORT

Project Property: *LSA ESA I
Sangundo Raceway
Sangudo AB*

Project No: *LSA ESA I*

Report Type: *Quote - Custom-Build Your Own Report*

Order No: *23121100198*

Requested by: *Omni-McCann Inc.*

Date Completed: *December 14, 2023*

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Executive Summary

Property Information:

Project Property: LSA ESA I
Sangundo Raceway Sangudo AB

Project No: LSA ESA I

Order Information:

Order No: 23121100198
Date Requested: December 11, 2023
Requested by: Omni-McCann Inc.
Report Type: Quote - Custom-Build Your Own Report

Historical/Products:

ERIS Xplorer [ERIS Xplorer](#)
Land Title Search *Historical Land Title Search*

Executive Summary: Report Summary

<i>Database</i>	<i>Name</i>	<i>Searched</i>	<i>Project Property</i>	<i>Boundary to 0.25km</i>	<i>Total</i>
AERW	Well Licenses	Y	0	0	0
AGR	Agriculture and Fisheries - Certificates of Approval	Y	0	0	0
AOGW	Alberta Oil and Gas Wells	Y	0	0	0
AUTH	Authorizations	Y	0	21	21
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
CAWD	Waste Management Facilities - Certificates of Approval	Y	0	0	0
CBL	Commercial Activity Risk - City of Calgary Business Licenses	Y	0	0	0
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFO	Confined Feeding Operations	Y	0	0	0
CHEM	Chemical Processing Operations - Certificates of Approval	Y	0	0	0
CHM	Chemical Register	Y	0	0	0
CMPS	Compost Facilities	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CTNK	Fuel Sales and Storage	Y	0	0	0
DRWD	Approved Oilfield Waste Management Facilities	Y	0	0	0
EAS	Enforcement Action Summary	Y	0	0	0
EBL	Commercial Activity Risk - City of Edmonton Business Licenses	Y	0	0	0
ECMP	Environmental Compliance Prosecutions	Y	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	0	0
EIIS	Environmental Issues Inventory System	Y	0	0	0
EPST	Alberta Environment & Parks Storage Tanks	Y	0	0	0
EPWN	Environment Protection & Enhancement Act and Water Act Public Notices	Y	0	0	0
ESAR	Environmental Site Assessment Repository	Y	0	0	0
ETNK	Edmonton Vehicle Fueling Stations	Y	0	0	0
FAC	Facility List	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FIS	AER Incidents & Spills	Y	0	0	0
FOOD	Food Processing Operations - Certificates of Approval	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
FST	Fuel Storage Tanks	Y	0	0	0
GEN	Waste Generators Summary	Y	0	0	0
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0

Database	Name	Searched	Project Property	Boundary to 0.25km	Total
GPP	Gas Processing Plants	Y	0	0	0
HELP	Alberta Environment's H.E.L.P. (Help End Landfill Pollution) Program Database	Y	0	0	0
HORW	Horizontal Wells	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
LDS	Identification and Verification of Active and Inactive Land Disposal Sites	Y	0	0	0
LDSI	Land Disposal Sites on Indian Reserves	Y	0	0	0
LNDF	Landfill Registrations	Y	0	0	0
LUM	Lumber Related Operations - Certificates of Approval	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MMB	Metals, Minerals and Building Materials Operations - Certificates of Approval	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCST	PTMAA Non-Compliant Storage Tanks	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPR2	National Pollutant Release Inventory 1993-2020	Y	0	0	0
NPRI	National Pollutant Release Inventory - Historic	Y	0	0	0
OAM	Operating and Abandoned Mines	Y	0	0	0
OGF	Oil and Gas Facilities - ST102 & ST50	Y	0	0	0
OGWW	Oil and Gas Wells	Y	0	0	0
ORD	Enforcement Orders	Y	0	0	0
ORP	Alberta Orphan Wells	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PCG	Petrochemical, Coal and Gas Operations - Certificates of Approval	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PFCH	NPRI Reporters - PFAS Substances	Y	0	0	0
PFHA	Potential PFAS Handlers from NPRI	Y	0	0	0
PITS	Conglomerate and Waste Management Facilities	Y	0	0	0
PSP	Alberta Private Sewage Disposal Permits	Y	0	0	0
PTAP	PTMAA Approved (Open) Permits	Y	0	0	0
REC	Hazardous Waste Receivers Summary	Y	0	0	0
RECY	Alberta Recyclers	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0

<i>Database</i>	<i>Name</i>	<i>Searched</i>	<i>Project Property</i>	<i>Boundary to 0.25km</i>	<i>Total</i>
SCT	<i>Scott's Manufacturing Directory</i>	Y	0	0	0
SPEC	<i>Special Operation Classifications - Certificates of Approval</i>	Y	0	0	0
WDS	<i>Inventory of Waste Disposal Sites</i>	Y	0	0	0
WSTE	<i>Wastewater Operations</i>	Y	0	0	0
WWIS	<i>Alberta Water Well Information Database</i>	Y	0	11	11
Total:			0	32	32

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev diff (m)</i>	<i>Page Number</i>
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No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	WWIS		AB Well ID: 431163	WNW/30.6	-3.00	18
2	WWIS		AB Well ID: 10939988	N/165.9	-2.69	21
3	WWIS		AB Well ID: 350391	N/178.3	-3.00	27
3	WWIS		AB Well ID: 351722	N/178.3	-3.00	31
3	WWIS		AB Well ID: 431156	N/178.3	-3.00	35
3	WWIS		AB Well ID: 431158	N/178.3	-3.00	37
3	WWIS		AB Well ID: 431167	N/178.3	-3.00	39
3	WWIS		AB Well ID: 431172	N/178.3	-3.00	44
3	WWIS		AB Well ID: 431890	N/178.3	-3.00	49
3	WWIS		AB Well ID: 466765	N/178.3	-3.00	51
3	WWIS		AB Well ID: 497048	N/178.3	-3.00	55
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	59

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	60
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	60
4	AUTH	Lac Ste Anne County	5;7;57;1;SW AB	N/180.0	-3.00	60
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	60
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	60
4	AUTH	Bonavista Energy Corporation	5;7;57;1;SW AB	N/180.0	-3.00	60
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	61
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	61
4	AUTH	Lac Ste Anne County	5;7;57;1;SW AB	N/180.0	-3.00	61
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	61
4	AUTH	Lac Ste Anne County	5;7;57;1;SW AB	N/180.0	-3.00	61
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	61
4	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	61

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
<u>4</u>	AUTH	Diane Wannamaker	5;7;57;1;SW AB	N/180.0	-3.00	<u>62</u>
<u>4</u>	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	<u>62</u>
<u>4</u>	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	<u>62</u>
<u>4</u>	AUTH	Lac Ste Anne County	5;7;57;1;SW AB	N/180.0	-3.00	<u>62</u>
<u>4</u>	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	<u>62</u>
<u>4</u>	AUTH	Lac Ste. Anne County	5;7;57;1;SW AB	N/180.0	-3.00	<u>62</u>
<u>4</u>	AUTH	Lac Ste Anne County	5;7;57;1;SW AB	N/180.0	-3.00	<u>63</u>

Executive Summary: Summary By Data Source

AUTH - Authorizations

A search of the AUTH database, dated Jul 2023 has found that there are 21 AUTH site(s) within approximately 0.25 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Diane Wannamaker	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste Anne County	5;7;57;1;SW AB	180.0	<u>4</u>

Site	Address	Distance (m)	Map Key
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Bonavista Energy Corporation	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>
Lac Ste. Anne County	5;7;57;1;SW AB	180.0	<u>4</u>

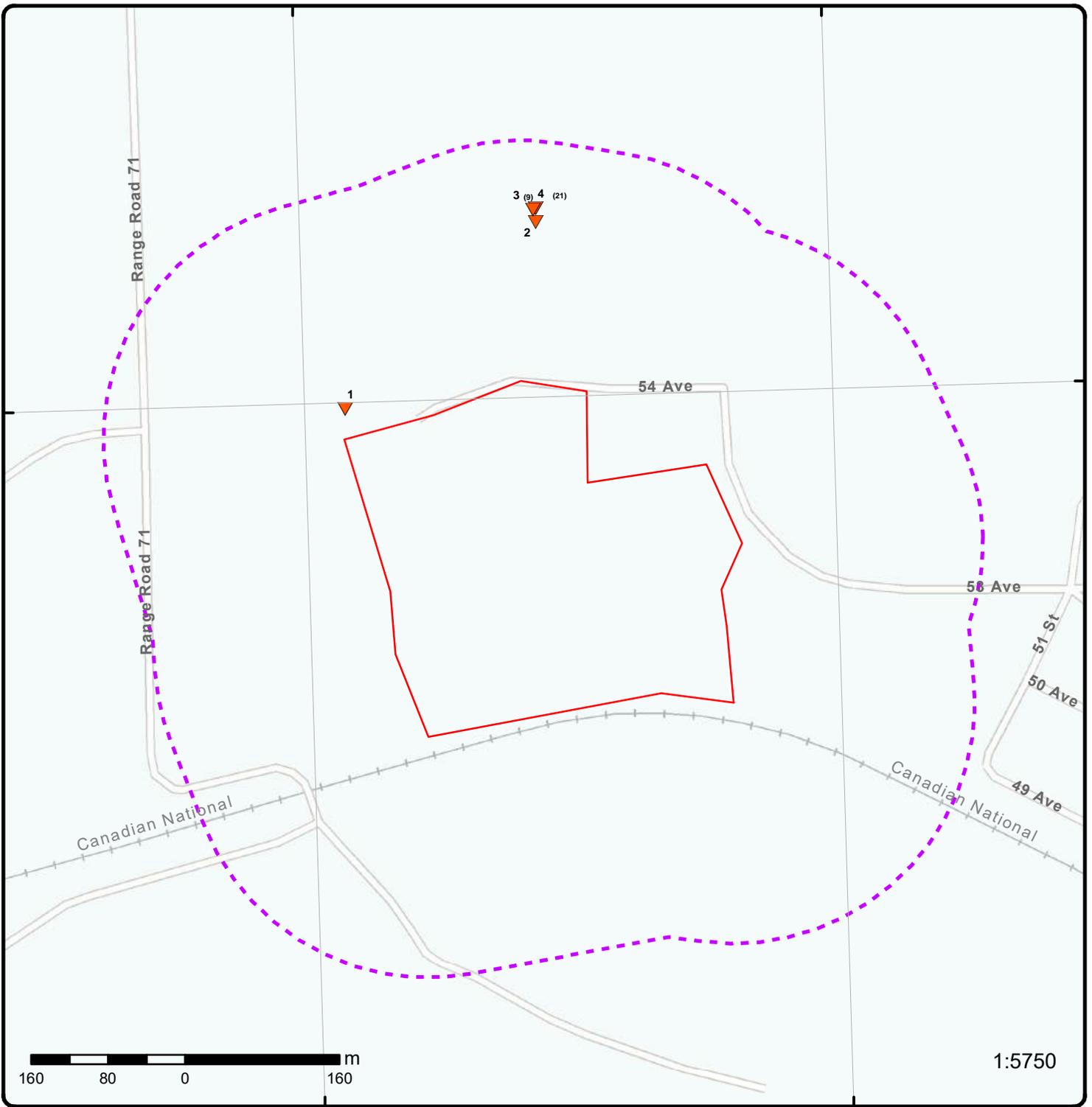
<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
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WWIS - Alberta Water Well Information Database

A search of the WWIS database, dated 1880-Aug 31, 2023 has found that there are 11 WWIS site(s) within approximately 0.25 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	AB <i>Well ID: 431163</i>	30.6	<u>1</u>
	AB <i>Well ID: 10939988</i>	165.9	<u>2</u>
	AB <i>Well ID: 350391</i>	178.3	<u>3</u>
	AB <i>Well ID: 497048</i>	178.3	<u>3</u>
	AB <i>Well ID: 466765</i>	178.3	<u>3</u>
	AB <i>Well ID: 431890</i>	178.3	<u>3</u>
	AB <i>Well ID: 431172</i>	178.3	<u>3</u>
	AB <i>Well ID: 431167</i>	178.3	<u>3</u>
	AB <i>Well ID: 431158</i>	178.3	<u>3</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	AB <i>Well ID: 351722</i>	178.3	<u>3</u>
	AB <i>Well ID: 431156</i>	178.3	<u>3</u>



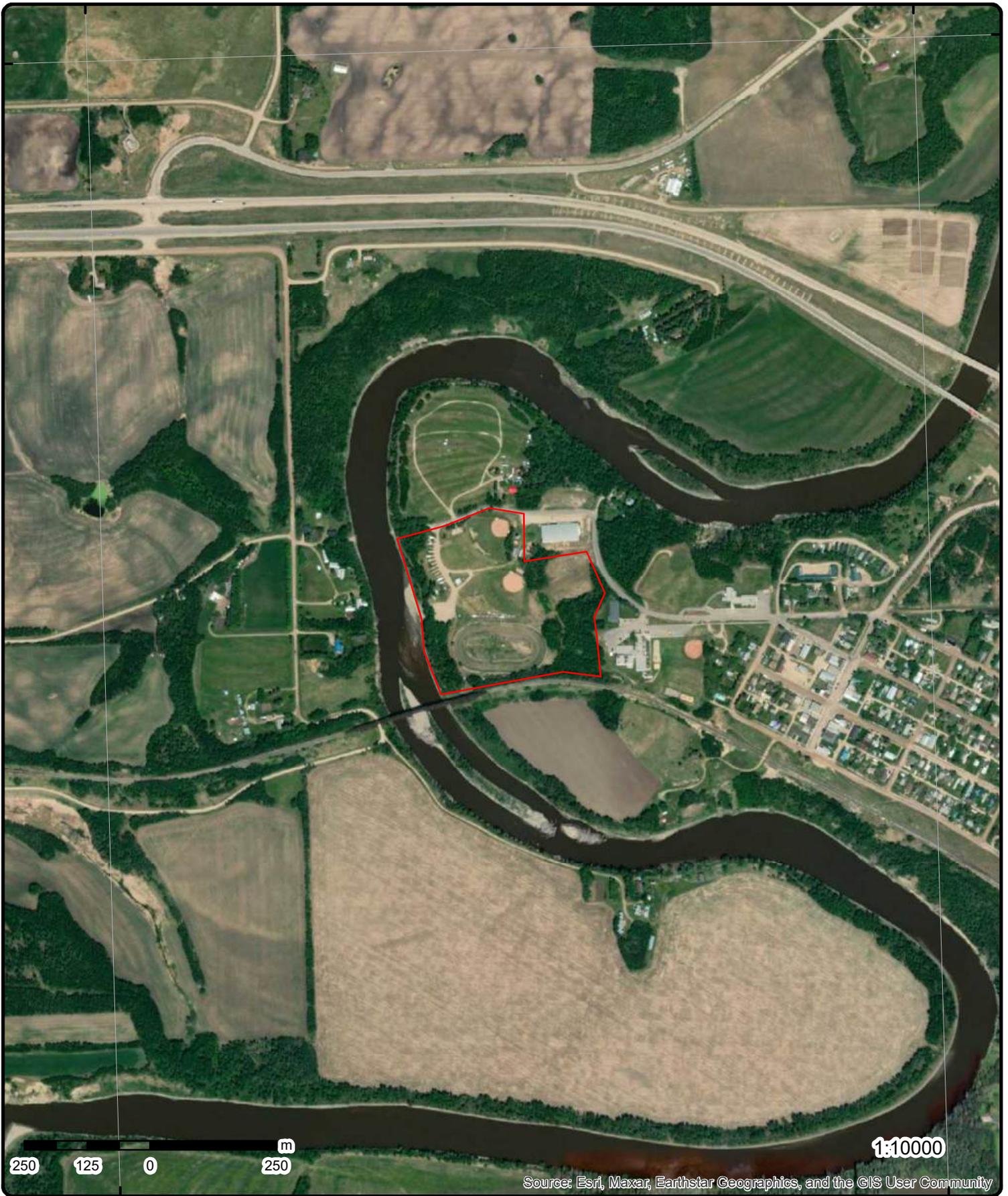
Map: 0.25 Kilometer Radius

Order Number: 23121100198

Address: Sangundo Raceway, Sangudo, AB



Project Property	Freeways; Highways	Beach	Shopping & Sports Area
Buffer Outline	Traffic Circle; Ramp	Airport	University/College
Eris Sites with Higher Elevation	Major Arterial; Minor Arterial	Industrial Area	Cemetery; Golf Course
Eris Sites with Same Elevation	Local Road	Military Base	Parkt (National)
Eris Sites with Lower Elevation	Service Road; Traffic Circle; Ramp	Aircraft Roads	Park (City/County)
Eris Sites with Unknown Elevation	Rail	Native Reservation	Hospital



Aerial Year: 2021

Order Number: 23121100198

Address: Sangundo Raceway, Sangudo, AB



Source: ESRI World Imagery

© ERIS Information Limited Partnership



1:24000

Topographic Map

Order Number: 23121100198

Address: Sangudo Raceway, AB

Source: ESRI World Topographic Map



© ERIS Information Limited Partnership

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>1</u>	1 of 1	WNW/30.6	663.0 / -3.00	AB	WWIS

<p>Well ID: 431163 Driller ID: 99999 Licence No: GIC Well ID: 431163 GOA Well Tag No: Elevation (ft): 2180.00000000 Depth (ft): Date Completed: Proposed Use: Lot: Block: Plan: Type of Work: Flowing Well: Date Started: Water Req Per Day: Gas Present: Oil Present: Flow Rate: Drilling Company: Owner Mailing Address: Driller Mailing Address:</p>	<p>Elevation Source: Estimated Method of Drilling: GPS Obtained: Not Verified Boundary From: Distance North: Distance South: Distance East: Distance West: Additional Desc: Validated?: TRUE Submitted?: TRUE Location Locked?: TRUE Longitude: -114.91609700 Latitude: 53.89160800 LSD: 4 Section: 1 Township: 57 Range: 7 Meridian: 5 DLS Coordinates: 4-1-57-7-5</p>
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Well Reports

<p>Well Report ID: 431163 Well Owner ID: 10698749 Driller ID: 2533726 Drill Company ID: 99999 Drill Instance ID: 8338328 Drill Comp Well ID: Existing Well ID: Date Received: Type of Work: New Well Plug Date: Plug Material Type: Plug Mat Amount: Plugged Units: Well Use: Domestic Other Well Use: Total Depth Drill: 200.00 Finish Well Depth: Casing Material: Unknown Casing OD: 4.00 Casing Thickness: 0.00 Casing Bottom: 140.00 Liner Material: Liner OD: 0.00 Liner Thickness: 0.00 Liner Top: 0.00 Liner Bottom: 0.00 Perforation by:</p>	<p>Annular Seal Mat: Annular Seal from: 0.00 Annular Seal to: 0.00 Annular Seal Amt: Annular Seal Units: Drilling Method: Rotary Drilling Start Dt: Drilling End Dt: 1959/03/13 Pack Type: Pack Grain Size: Pack Amount: Pack Units: Loc Verify Method: Not Verified Dist Casing Ground: Artesian Flow?: FALSE Artesian Flow Rate: Gas Depth: Encounter Gas?: FALSE Flow Ctrl Install?: FALSE Recommended Rate: 0.00 Recom Intake Depth: 175.00 Pump Installed?: FALSE Pump Install Depth: Pump Model: Pump Horsepower: Well Disinfected?: FALSE Other Log:</p>
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Screen Material:				Divert Water Src:	
Screen Size OD:	0.00			Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	TRUE
Screen Bot Fitting:				Is Validated?:	TRUE
Encounter Saline Water?:		FALSE			
Saline Water Depth:					
Potability Sample Taken?:		FALSE			
Potable Sample Sent to AENV?:		FALSE			
Approval Holder Sign Date:					
Drilling Report Given to Owner:		FALSE			
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:		DRILLER REPORTS WATER CLEAR, SOFT, & ODORLESS.			
<u>Well Owners</u>					
Well Owner ID:		10698749			
Owner Name:		COLBEY, E.			
PO Box:					
Address:		SANGUDO			
City:					
Postal Code:					
Province:					
Country:					
<u>Drillers</u>					
Driller ID:		2533726			
Last Name:		DRILLER			
Middle Initial:		NA			
First Name:		UNKNOWN			
Journeyman No:		1			
Is Active?:		TRUE			
<u>Drilling Companies</u>					
Starting Well ID:		1931300			
Ending Well ID:		1931399			
Last Well ID Used:					
Company Name:		OTHER			
Street Address:		NOT APPLICABLE			
City:		N/A			
Province:		N/A			
Country:		N/A			
Postal Code:		N/A			
E-Mail:		gwinfo@gov.ab.ca			
Is Active?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5590038			
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Geophysical Logs</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Geophysical Log ID:		5993113			
Log Type:		Gamma			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		691743			
Diameter:		0.000000			
From:		0.000000			
To:		200.000000			
<u>Lithologies</u>					
Depth:		80.000000			
Water Bearing:		FALSE			
Colour:					
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		95.000000			
Water Bearing:		FALSE			
Colour:					
Description:					
Material:		Sand			
<u>Lithologies</u>					
Depth:		145.000000			
Water Bearing:		FALSE			
Colour:					
Description:		Hard			
Material:		Sand			
<u>Lithologies</u>					
Depth:		40.000000			
Water Bearing:		FALSE			
Colour:					
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		120.000000			
Water Bearing:		FALSE			
Colour:					
Description:		Lost Circulation			
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		200.000000			
Water Bearing:		FALSE			
Colour:					
Description:					
Material:		Sandstone			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Lithologies

Depth: 65.000000
 Water Bearing: FALSE
 Colour:
 Description:
 Material: Sand

Pump Tests

Pump Test ID: 10355080
 Test Date: 1959/03/13
 Start Time: 1900/01/12
 Taken from Top of Casing: FALSE
 Static Water Level: 160.00
 End Water Level: 175.00
 Water Removal Type: Unknown
 Water Removal Rate: 3.00
 Removal Depth from: 175.00
 Reason for Short Test:

2 1 of 1 N/165.9 663.3 / -2.69 AB WWIS

Well ID: 10939988	Elevation Source: Not Obtained
Driller ID: 24278	Method of Drilling:
Licence No:	GPS Obtained: Not Verified
GIC Well ID: 1720057	Boundary From:
GOA Well Tag No:	Distance North:
Elevation (ft):	Distance South:
Depth (ft):	Distance East:
Date Completed:	Distance West:
Proposed Use:	Additional Desc:
Lot:	Validated?: TRUE
Block:	Submitted?: TRUE
Plan:	Location Locked?: TRUE
Type of Work:	Longitude: -114.91300000
Flowing Well:	Latitude: 53.89330000
Date Started:	LSD: SW
Water Req Per Day:	Section: 1
Gas Present:	Township: 57
Oil Present:	Range: 7
Flow Rate:	Meridian: 5
Drilling Company:	DLS Coordinates: SW-1-57-7-5
Owner Mailing Address:	
Driller Mailing Address:	

Well Reports

Well Report ID: 10939990	Annular Seal Mat: Driven & Welded Ring
Well Owner ID: 10939989	Annular Seal from: 106.00
Driller ID: 10787085	Annular Seal to: 107.00
Drill Company ID: 24278	Annular Seal Amt:
Drill Instance ID: 10787086	Annular Seal Units:
Drill Comp Well ID:	Drilling Method: Rotary
Existing Well ID:	Drilling Start Dt: 2002/06/29
Date Received:	Drilling End Dt: 2002/06/29
Type of Work: New Well	Pack Type: Unknown
Plug Date:	Pack Grain Size:
Plug Material Type: Unknown	Pack Amount:
Plug Mat Amount:	Pack Units: Unknown
Plugged Units:	Loc Verify Method: Not Verified

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Well Use:	Domestic			Dist Casing Ground:	24.00
Other Well Use:				Artesian Flow?:	FALSE
Total Depth Drill:	180.00			Artesian Flow Rate:	
Finish Well Depth:				Gas Depth:	
Casing Material:	Plastic			Encounter Gas?:	FALSE
Casing OD:	6.00			Flow Ctrl Install?:	FALSE
Casing Thickness:	0.39			Recommended Rate:	3.00
Casing Bottom:	107.00			Recom Intake Depth:	175.00
Liner Material:	Plastic			Pump Installed?:	FALSE
Liner OD:	4.50			Pump Install Depth:	
Liner Thickness:	0.24			Pump Model:	
Liner Top:	100.00			Pump Horsepower:	
Liner Bottom:	180.00			Well Disinfected?:	FALSE
Perforation by:	Saw			Other Log:	
Screen Material:				Divert Water Src:	
Screen Size OD:				Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	TRUE
Screen Bot Fitting:				Is Validated?:	TRUE
Encounter Saline Water?:	FALSE				
Saline Water Depth:					
Potability Sample Taken?:	FALSE				
Potable Sample Sent to AENV?:	FALSE				
Approval Holder Sign Date:					
Drilling Report Given to Owner:	FALSE				
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:					

Drillers

Driller ID: 10787085
Last Name: SUNTJENS
Middle Initial:
First Name: GEORGE
Journeyman No: VA3259
Is Active?: TRUE

Drilling Companies

Starting Well ID: 1720000
Ending Well ID: 1724999
Last Well ID Used: 1720085
Company Name: SUNSHINE DRILLING LTD.
Street Address: BOX 261
City: SANGUDO
Province: AB
Country: CA
Postal Code: T0E 2A0
E-Mail: gwinfo@gov.ab.ca
Is Active?: FALSE

Perforations

Perforation ID: 4235260
From: 130.000000
To: 179.000000
Diameter: 0.062000
Interval: 3.000000

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<u>Geophysical Logs</u>					
<i>Geophysical Log ID:</i>		6066480			
<i>Log Type:</i>		Gamma			
<i>Log Taken?:</i>		FALSE			
<i>Sent to AENV?:</i>		FALSE			
<u>Geophysical Logs</u>					
<i>Geophysical Log ID:</i>		5663405			
<i>Log Type:</i>		Electric			
<i>Log Taken?:</i>		FALSE			
<i>Sent to AENV?:</i>		FALSE			
<u>Boreholes</u>					
<i>Borehole ID:</i>		764903			
<i>Diameter:</i>		7.875000			
<i>From:</i>		0.000000			
<i>To:</i>		180.000000			
<u>Lithologies</u>					
<i>Depth:</i>		176.000000			
<i>Water Bearing:</i>		FALSE			
<i>Colour:</i>		Gray Salt & Pepper			
<i>Description:</i>		Medium Grained			
<i>Material:</i>		Sandstone			
<u>Lithologies</u>					
<i>Depth:</i>		106.000000			
<i>Water Bearing:</i>		FALSE			
<i>Colour:</i>		Green			
<i>Description:</i>					
<i>Material:</i>		Sandstone			
<u>Lithologies</u>					
<i>Depth:</i>		148.000000			
<i>Water Bearing:</i>		FALSE			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Sandstone			
<u>Lithologies</u>					
<i>Depth:</i>		124.000000			
<i>Water Bearing:</i>		FALSE			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Sandstone			
<u>Lithologies</u>					
<i>Depth:</i>		54.000000			
<i>Water Bearing:</i>		FALSE			
<i>Colour:</i>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Description:		Pea			
Material:		Gravel			
<u>Lithologies</u>					
Depth:		139.000000			
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		174.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		30.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Clay & Rocks			
<u>Lithologies</u>					
Depth:		68.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		86.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Clay & Rocks			
<u>Lithologies</u>					
Depth:		97.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		178.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Sandstone			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Lithologies</u>					
Depth:			163.000000		
Water Bearing:			FALSE		
Colour:			Green		
Description:					
Material:			Sandstone		
<u>Lithologies</u>					
Depth:			152.000000		
Water Bearing:			FALSE		
Colour:			Gray Salt & Pepper		
Description:			Medium Grained		
Material:			Sandstone		
<u>Lithologies</u>					
Depth:			180.000000		
Water Bearing:			FALSE		
Colour:			Brown		
Description:					
Material:			Sandstone & Coal		
<u>Pump Tests</u>					
Pump Test ID:			10940006		
Test Date:			2002/06/29		
Start Time:			1900/01/12		
Taken from Top of Casing:			FALSE		
Static Water Level:			72.00		
End Water Level:			170.00		
Water Removal Type:			Air		
Water Removal Rate:			3.00		
Removal Depth from:			175.00		
Reason for Short Test:					
<u>Pump Test Items</u>					
Pump Test Item ID:			10940013		
Minutes:			6.00		
Pumping Depth:					
Recovery Depth:			140.000000		
<u>Pump Test Items</u>					
Pump Test Item ID:			10940018		
Minutes:			12.00		
Pumping Depth:					
Recovery Depth:			116.000000		
<u>Pump Test Items</u>					
Pump Test Item ID:			10940011		
Minutes:			4.00		
Pumping Depth:					
Recovery Depth:			149.000000		
<u>Pump Test Items</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Pump Test Item ID:		10940012			
Minutes:		5.00			
Pumping Depth:					
Recovery Depth:		144.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940007			
Minutes:		0.00			
Pumping Depth:					
Recovery Depth:		170.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940008			
Minutes:		1.00			
Pumping Depth:					
Recovery Depth:		164.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940010			
Minutes:		3.00			
Pumping Depth:					
Recovery Depth:		154.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940016			
Minutes:		9.00			
Pumping Depth:					
Recovery Depth:		128.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940017			
Minutes:		10.00			
Pumping Depth:					
Recovery Depth:		124.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940019			
Minutes:		14.00			
Pumping Depth:					
Recovery Depth:		108.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940021			
Minutes:		20.00			
Pumping Depth:					
Recovery Depth:		84.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940009			
Minutes:		2.00			
Pumping Depth:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Recovery Depth:		159.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940014			
Minutes:		7.00			
Pumping Depth:					
Recovery Depth:		136.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940022			
Minutes:		25.00			
Pumping Depth:					
Recovery Depth:		72.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940015			
Minutes:		8.00			
Pumping Depth:					
Recovery Depth:		132.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		10940020			
Minutes:		16.00			
Pumping Depth:					
Recovery Depth:		100.000000			

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Well ID:	350391	Elevation Source:	Not Obtained
Driller ID:	24278	Method of Drilling:	
Licence No:		GPS Obtained:	Map
GIC Well ID:	350391	Boundary From:	
GOA Well Tag No:		Distance North:	
Elevation (ft):		Distance South:	
Depth (ft):		Distance East:	
Date Completed:		Distance West:	
Proposed Use:		Additional Desc:	
Lot:		Validated?:	TRUE
Block:		Submitted?:	TRUE
Plan:		Location Locked?:	TRUE
Type of Work:		Longitude:	-114.91303700
Flowing Well:		Latitude:	53.89341500
Date Started:		LSD:	SW
Water Req Per Day:		Section:	1
Gas Present:		Township:	57
Oil Present:		Range:	7
Flow Rate:		Meridian:	5
Drilling Company:		DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:			
Driller Mailing Address:			

Well Reports

Well Report ID:	350391	Annular Seal Mat:	Driven
Well Owner ID:	10623280	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	106.00

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Drill Company ID:	24278			Annular Seal Amt:	
Drill Instance ID:	8335552			Annular Seal Units:	
Drill Comp Well ID:				Drilling Method:	Rotary
Existing Well ID:				Drilling Start Dt:	1990/03/24
Date Received:	1990/04/12			Drilling End Dt:	1990/03/24
Type of Work:	New Well			Pack Type:	
Plug Date:				Pack Grain Size:	
Plug Material Type:				Pack Amount:	0.00
Plug Mat Amount:				Pack Units:	
Plugged Units:				Loc Verify Method:	Map
Well Use:	Domestic & Stock			Dist Casing Ground:	
Other Well Use:				Artesian Flow?:	FALSE
Total Depth Drill:	120.00			Artesian Flow Rate:	
Finish Well Depth:				Gas Depth:	
Casing Material:	Galvanized Steel			Encounter Gas?:	FALSE
Casing OD:	4.50			Flow Ctrl Install?:	FALSE
Casing Thickness:	0.16			Recommended Rate:	10.00
Casing Bottom:	108.00			Recom Intake Depth:	0.00
Liner Material:				Pump Installed?:	FALSE
Liner OD:	0.00			Pump Install Depth:	
Liner Thickness:	0.00			Pump Model:	
Liner Top:	0.00			Pump Horsepower:	
Liner Bottom:	0.00			Well Disinfected?:	FALSE
Perforation by:				Other Log:	
Screen Material:				Divert Water Src:	
Screen Size OD:	0.00			Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	TRUE
Screen Bot Fitting:				Is Validated?:	TRUE
Encounter Saline Water?:	FALSE				
Saline Water Depth:					
Potability Sample Taken?:	FALSE				
Potable Sample Sent to AENV?:	FALSE				
Approval Holder Sign Date:					
Drilling Report Given to Owner:	FALSE				
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:					

Well Owners

Well Owner ID: 10623280
Owner Name: CAMPBELL, ROBERT
PO Box:
Address: SANGUDO
City:
Postal Code:
Province:
Country:

Drillers

Driller ID: 2533726
Last Name: DRILLER
Middle Initial: NA
First Name: UNKNOWN
Journeyman No: 1
Is Active?: TRUE

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<u>Drilling Companies</u>					
Starting Well ID:		1720000			
Ending Well ID:		1724999			
Last Well ID Used:		1720085			
Company Name:		SUNSHINE DRILLING LTD.			
Street Address:		BOX 261			
City:		SANGUDO			
Province:		AB			
Country:		CA			
Postal Code:		T0E 2A0			
E-Mail:		gwinfo@gov.ab.ca			
Is Active?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5993121			
Log Type:		Gamma			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5590046			
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		691751			
Diameter:		0.000000			
From:		0.000000			
To:		120.000000			
<u>Lithologies</u>					
Depth:		118.000000			
Water Bearing:		FALSE			
Colour:		Light Gray			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		53.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		110.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Depth:		64.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Sand			
<u>Lithologies</u>					
Depth:		120.000000			
Water Bearing:		FALSE			
Colour:					
Description:		Lost Circulation			
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		40.000000			
Water Bearing:		FALSE			
Colour:					
Description:					
Material:		Stones			
<u>Lithologies</u>					
Depth:		38.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		69.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		89.000000			
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Pump Tests</u>					
Pump Test ID:		10309580			
Test Date:		1990/03/24			
Start Time:		1900/01/12			
Taken from Top of Casing:		FALSE			
Static Water Level:		64.00			
End Water Level:		100.00			
Water Removal Type:		Air			
Water Removal Rate:		10.00			
Removal Depth from:		100.00			
Reason for Short Test:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>3</u>	2 of 9	N/178.3	663.0 / -3.00	AB	WWIS
Well ID:	351722			Elevation Source:	Not Obtained
Driller ID:	24278			Method of Drilling:	
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	351722			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	TRUE
Block:				Submitted?:	TRUE
Plan:				Location Locked?:	TRUE
Type of Work:				Longitude:	-114.91303700
Flowing Well:				Latitude:	53.89341500
Date Started:				LSD:	SW
Water Req Per Day:				Section:	1
Gas Present:				Township:	57
Oil Present:				Range:	7
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:					
Driller Mailing Address:					

Well Reports

Well Report ID:	351722	Annular Seal Mat:	Driven
Well Owner ID:	10624546	Annular Seal from:	91.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	24278	Annular Seal Amt:	
Drill Instance ID:	8335552	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Rotary
Existing Well ID:		Drilling Start Dt:	1990/04/30
Date Received:	1990/07/26	Drilling End Dt:	1990/04/30
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	0.00
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	FALSE
Total Depth Drill:	160.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:	Steel	Encounter Gas?:	FALSE
Casing OD:	5.56	Flow Ctrl Install?:	FALSE
Casing Thickness:	0.19	Recommended Rate:	10.00
Casing Bottom:	92.00	Recom Intake Depth:	85.00
Liner Material:	Plastic	Pump Installed?:	TRUE
Liner OD:	4.50	Pump Install Depth:	
Liner Thickness:	0.50	Pump Model:	
Liner Top:	80.00	Pump Horsepower:	
Liner Bottom:	160.00	Well Disinfected?:	FALSE
Perforation by:	Machine	Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	TRUE
Screen Bot Fitting:		Is Validated?:	TRUE
Encounter Saline Water?:	FALSE		
Saline Water Depth:			
Potability Sample Taken?:	FALSE		
Potable Sample Sent to AENV?:	FALSE		
Approval Holder Sign Date:			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Drilling Report Given to Owner:</i>		FALSE			
<i>Model Output Rating:</i>					
<i>Remedial Action:</i>					
<i>Flow Control Description:</i>					
<i>Pump Type Installed:</i>		SUB			
<i>Created by:</i>					
<i>Submitted by:</i>					
<i>Additional Comments:</i>					
<u>Well Owners</u>					
<i>Well Owner ID:</i>		10624546			
<i>Owner Name:</i>		SUNSHINE DRLG#SHOP WELL			
<i>PO Box:</i>		261			
<i>Address:</i>		SANGUDO			
<i>City:</i>					
<i>Postal Code:</i>					
<i>Province:</i>					
<i>Country:</i>					
<u>Drillers</u>					
<i>Driller ID:</i>		2533726			
<i>Last Name:</i>		DRILLER			
<i>Middle Initial:</i>		NA			
<i>First Name:</i>		UNKNOWN			
<i>Journeyman No:</i>		1			
<i>Is Active?:</i>		TRUE			
<u>Drilling Companies</u>					
<i>Starting Well ID:</i>		1720000			
<i>Ending Well ID:</i>		1724999			
<i>Last Well ID Used:</i>		1720085			
<i>Company Name:</i>		SUNSHINE DRILLING LTD.			
<i>Street Address:</i>		BOX 261			
<i>City:</i>		SANGUDO			
<i>Province:</i>		AB			
<i>Country:</i>		CA			
<i>Postal Code:</i>		T0E 2A0			
<i>E-Mail:</i>		gwinfo@gov.ab.ca			
<i>Is Active?:</i>		FALSE			
<u>Perforations</u>					
<i>Perforation ID:</i>		4215152			
<i>From:</i>		81.000000			
<i>To:</i>		159.000000			
<i>Diameter:</i>		0.625000			
<i>Interval:</i>		3.000000			
<u>Geophysical Logs</u>					
<i>Geophysical Log ID:</i>		5993122			
<i>Log Type:</i>		Gamma			
<i>Log Taken?:</i>		FALSE			
<i>Sent to AENV?:</i>		FALSE			
<u>Geophysical Logs</u>					
<i>Geophysical Log ID:</i>		5590047			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		691752			
Diameter:		0.000000			
From:		0.000000			
To:		160.000000			
<u>Lithologies</u>					
Depth:		31.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:		Sandy			
Material:		Clay			
<u>Lithologies</u>					
Depth:		74.000000			
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		48.000000			
Water Bearing:		FALSE			
Colour:					
Description:					
Material:		Sand & Gravel			
<u>Lithologies</u>					
Depth:		129.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		160.000000			
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		69.000000			
Water Bearing:		FALSE			
Colour:		Light Brown			
Description:		Sandy			
Material:		Clay			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Lithologies</u>					
Depth:			159.000000		
Water Bearing:			FALSE		
Colour:			Light Gray		
Description:					
Material:			Sandstone		
<u>Lithologies</u>					
Depth:			142.000000		
Water Bearing:			FALSE		
Colour:			Gray		
Description:					
Material:			Sandstone		
<u>Lithologies</u>					
Depth:			99.000000		
Water Bearing:			FALSE		
Colour:			Brown		
Description:					
Material:			Sandstone		
<u>Lithologies</u>					
Depth:			98.000000		
Water Bearing:			FALSE		
Colour:					
Description:					
Material:			Coal		
<u>Lithologies</u>					
Depth:			81.000000		
Water Bearing:			FALSE		
Colour:			Gray		
Description:					
Material:			Sandstone		
<u>Lithologies</u>					
Depth:			115.000000		
Water Bearing:			FALSE		
Colour:			Green		
Description:					
Material:			Sandstone		
<u>Lithologies</u>					
Depth:			136.000000		
Water Bearing:			FALSE		
Colour:			Light Gray		
Description:					
Material:			Sandstone		
<u>Pump Tests</u>					
Pump Test ID:			10310735		
Test Date:			1990/04/30		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Start Time:		1900/01/12			
Taken from Top of Casing:		FALSE			
Static Water Level:		32.00			
End Water Level:		85.00			
Water Removal Type:		Pump			
Water Removal Rate:		10.00			
Removal Depth from:		85.00			
Reason for Short Test:					

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Well ID:	431156	Elevation Source:	Survey-Transit
Driller ID:	11110	Method of Drilling:	
Licence No:		GPS Obtained:	Not Verified
GIC Well ID:	431156	Boundary From:	
GOA Well Tag No:		Distance North:	
Elevation (ft):	2172.00000000	Distance South:	
Depth (ft):		Distance East:	
Date Completed:		Distance West:	
Proposed Use:		Additional Desc:	
Lot:		Validated?:	TRUE
Block:		Submitted?:	TRUE
Plan:		Location Locked?:	TRUE
Type of Work:		Longitude:	-114.91303700
Flowing Well:		Latitude:	53.89341500
Date Started:		LSD:	SW
Water Req Per Day:		Section:	1
Gas Present:		Township:	57
Oil Present:		Range:	7
Flow Rate:		Meridian:	5
Drilling Company:		DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:			
Driller Mailing Address:			

Well Reports

Well Report ID:	431156	Annular Seal Mat:	
Well Owner ID:	10698741	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	11110	Annular Seal Amt:	
Drill Instance ID:	8337868	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Unknown
Existing Well ID:		Drilling Start Dt:	
Date Received:		Drilling End Dt:	
Type of Work:	Test Hole	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Unknown	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	FALSE
Total Depth Drill:	50.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:		Encounter Gas?:	FALSE
Casing OD:	0.00	Flow Ctrl Install?:	FALSE
Casing Thickness:	0.00	Recommended Rate:	
Casing Bottom:	0.00	Recom Intake Depth:	
Liner Material:		Pump Installed?:	FALSE
Liner OD:	0.00	Pump Install Depth:	
Liner Thickness:	0.00	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	0.00	Well Disinfected?:	FALSE
Perforation by:		Other Log:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Screen Material:				Divert Water Src:	
Screen Size OD:	0.00			Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	TRUE
Screen Bot Fitting:				Is Validated?:	TRUE
Encounter Saline Water?:		FALSE			
Saline Water Depth:					
Potability Sample Taken?:		FALSE			
Potable Sample Sent to AENV?:		FALSE			
Approval Holder Sign Date:					
Drilling Report Given to Owner:		FALSE			
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:		LITHOLOGY:0-28' LOOSE FINE SILTY SAND. TEST HOLE LOCATED 25' NORTH OF RIVER.			

Well Owners

Well Owner ID: 10698741
Owner Name: #TEST HOLE 1
PO Box:
Address: SANGUDO BRIDGE
City:
Postal Code:
Province:
Country:

Drillers

Driller ID: 2533726
Last Name: DRILLER
Middle Initial: NA
First Name: UNKNOWN
Journeyman No: 1
Is Active?: TRUE

Drilling Companies

Starting Well ID: 1973500
Ending Well ID: 1973599
Last Well ID Used: 1973599
Company Name: UNKNOWN DRILLER
Street Address: UNKNOWN
City: UNKNOWN
Province: AB
Country: CA
Postal Code:
E-Mail: gwinfo@gov.ab.ca
Is Active?: FALSE

Geophysical Logs

Geophysical Log ID: 5993123
Log Type: Gamma
Log Taken?: FALSE
Sent to AENV?: FALSE

Geophysical Logs

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Geophysical Log ID:		5590048			
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		691753			
Diameter:		0.000000			
From:		0.000000			
To:		50.000000			
<u>Lithologies</u>					
Depth:		50.000000			
Water Bearing:		FALSE			
Colour:					
Description:		Fine Grained			
Material:		Sand			
<u>Lithologies</u>					
Depth:		30.000000			
Water Bearing:		FALSE			
Colour:					
Description:					
Material:		Gravel			
<u>Lithologies</u>					
Depth:		28.000000			
Water Bearing:		FALSE			
Colour:					
Description:		See Comments			
Material:		Sand			

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Well ID:	431158	Elevation Source:	Survey-Transit
Driller ID:	11110	Method of Drilling:	
Licence No:		GPS Obtained:	Not Verified
GIC Well ID:	431158	Boundary From:	
GOA Well Tag No:		Distance North:	
Elevation (ft):	2200.00000000	Distance South:	
Depth (ft):		Distance East:	
Date Completed:		Distance West:	
Proposed Use:		Additional Desc:	
Lot:		Validated?:	TRUE
Block:		Submitted?:	TRUE
Plan:		Location Locked?:	TRUE
Type of Work:		Longitude:	-114.91303700
Flowing Well:		Latitude:	53.89341500
Date Started:		LSD:	SW
Water Req Per Day:		Section:	1
Gas Present:		Township:	57
Oil Present:		Range:	7
Flow Rate:		Meridian:	5
Drilling Company:		DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:			
Driller Mailing Address:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Well Reports</u>					
Well Report ID:	431158			Annular Seal Mat:	
Well Owner ID:	10698744			Annular Seal from:	0.00
Driller ID:	2533726			Annular Seal to:	0.00
Drill Company ID:	11110			Annular Seal Amt:	
Drill Instance ID:	8337868			Annular Seal Units:	
Drill Comp Well ID:				Drilling Method:	Unknown
Existing Well ID:				Drilling Start Dt:	
Date Received:				Drilling End Dt:	
Type of Work:	Test Hole			Pack Type:	
Plug Date:				Pack Grain Size:	
Plug Material Type:				Pack Amount:	
Plug Mat Amount:				Pack Units:	
Plugged Units:				Loc Verify Method:	Not Verified
Well Use:	Unknown			Dist Casing Ground:	
Other Well Use:				Artesian Flow?:	FALSE
Total Depth Drill:	26.00			Artesian Flow Rate:	
Finish Well Depth:				Gas Depth:	
Casing Material:				Encounter Gas?:	FALSE
Casing OD:	0.00			Flow Ctrl Install?:	FALSE
Casing Thickness:	0.00			Recommended Rate:	
Casing Bottom:	0.00			Recom Intake Depth:	
Liner Material:				Pump Installed?:	FALSE
Liner OD:	0.00			Pump Install Depth:	
Liner Thickness:	0.00			Pump Model:	
Liner Top:	0.00			Pump Horsepower:	
Liner Bottom:	0.00			Well Disinfected?:	FALSE
Perforation by:				Other Log:	
Screen Material:				Divert Water Src:	
Screen Size OD:	0.00			Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	TRUE
Screen Bot Fitting:				Is Validated?:	TRUE
Encounter Saline Water?:	FALSE				
Saline Water Depth:					
Potability Sample Taken?:	FALSE				
Potable Sample Sent to AENV?:	FALSE				
Approval Holder Sign Date:					
Drilling Report Given to Owner:	FALSE				
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:		TEST HOLE LOCATED 60' SOUTH OF RIVER.			

Well Owners

Well Owner ID: 10698744
Owner Name: #TEST HOLE 2
PO Box:
Address: SANGUDO BRIDGE
City:
Postal Code:
Province:
Country:

Drillers

Driller ID: 2533726
Last Name: DRILLER

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Middle Initial:		NA			
First Name:		UNKNOWN			
Journeyman No:		1			
Is Active?:		TRUE			
<u>Drilling Companies</u>					
Starting Well ID:		1973500			
Ending Well ID:		1973599			
Last Well ID Used:		1973599			
Company Name:		UNKNOWN DRILLER			
Street Address:		UNKNOWN			
City:		UNKNOWN			
Province:		AB			
Country:		CA			
Postal Code:					
E-Mail:		gwinfo@gov.ab.ca			
Is Active?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5993124			
Log Type:		Gamma			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5590049			
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		691754			
Diameter:		0.000000			
From:		0.000000			
To:		26.000000			
<u>Lithologies</u>					
Depth:		18.000000			
Water Bearing:		FALSE			
Colour:					
Description:		Dry			
Material:		Sand			
<u>Lithologies</u>					
Depth:		26.000000			
Water Bearing:		FALSE			
Colour:					
Description:		Fine Grained			
Material:		Gravel			

3 **5 of 9** **N/178.3** **663.0 / -3.00** **AB** **WWIS**

Well ID: 431167 **Elevation Source:** Not Obtained

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Driller ID:	11110			Method of Drilling:	
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	431167			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	TRUE
Block:				Submitted?:	TRUE
Plan:				Location Locked?:	TRUE
Type of Work:				Longitude:	-114.91303700
Flowing Well:				Latitude:	53.89341500
Date Started:				LSD:	SW
Water Req Per Day:				Section:	1
Gas Present:				Township:	57
Oil Present:				Range:	7
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:					
Driller Mailing Address:					

Chemical Analysis

Chem Analysis ID: 2098428
Well Report ID: 431167
Sample No: 3542
Sample Date: 1983/03/30
Analysis Date: 1983/04/12
Laboratory: VE
Water Level:
Aquifer:
Remarks:

Analysis Items

Element Name: Nitrate plus Nitrite
Element Symbol: NO2_NO3_N
Decimal Places: 4
Value: -0.050400

Analysis Items

Element Name: Hydroxide
Element Symbol: OH
Decimal Places: 4
Value: 0.000000

Analysis Items

Element Name: pH
Element Symbol: PH
Decimal Places: 2
Value: 8.600000

Analysis Items

Element Name: Carbonate
Element Symbol: CO3
Decimal Places: 4
Value: 14.001000

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<u>Analysis Items</u>					
<i>Element Name:</i>		Sulphate			
<i>Element Symbol:</i>		SO4			
<i>Decimal Places:</i>		4			
<i>Value:</i>		-5.007210			
<u>Analysis Items</u>					
<i>Element Name:</i>		Total Hardness			
<i>Element Symbol:</i>		TH			
<i>Decimal Places:</i>		4			
<i>Value:</i>		-5.000000			
<u>Analysis Items</u>					
<i>Element Name:</i>		Chloride			
<i>Element Symbol:</i>		CL			
<i>Decimal Places:</i>		4			
<i>Value:</i>		31.044750			
<u>Analysis Items</u>					
<i>Element Name:</i>		Silica			
<i>Element Symbol:</i>		SIO2			
<i>Decimal Places:</i>		4			
<i>Value:</i>		8.100000			
<u>Analysis Items</u>					
<i>Element Name:</i>		Ion Balance			
<i>Element Symbol:</i>		IONBAL			
<i>Decimal Places:</i>		4			
<i>Value:</i>		0.930000			
<u>Analysis Items</u>					
<i>Element Name:</i>		Potassium			
<i>Element Symbol:</i>		K			
<i>Decimal Places:</i>		4			
<i>Value:</i>		0.612000			
<u>Analysis Items</u>					
<i>Element Name:</i>		Nitrite			
<i>Element Symbol:</i>		NO2			
<i>Decimal Places:</i>		4			
<i>Value:</i>		-0.050400			
<u>Analysis Items</u>					
<i>Element Name:</i>		Total Alkalinity			
<i>Element Symbol:</i>		TA			
<i>Decimal Places:</i>		4			
<i>Value:</i>		591.000000			
<u>Analysis Items</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Element Name:		total Kjeldahl nitrogen			
Element Symbol:		TKN			
Decimal Places:		4			
Value:		0.000000			
<u>Analysis Items</u>					
Element Name:		Total Dissolved Solids			
Element Symbol:		TDS			
Decimal Places:		0			
Value:		665.000000			
<u>Analysis Items</u>					
Element Name:		Iron			
Element Symbol:		FE			
Decimal Places:		4			
Value:		0.030000			
<u>Analysis Items</u>					
Element Name:		Total Phosphorus			
Element Symbol:		TP			
Decimal Places:		4			
Value:		0.000000			
<u>Analysis Items</u>					
Element Name:		Fluoride			
Element Symbol:		F			
Decimal Places:		4			
Value:		2.400000			
<u>Analysis Items</u>					
Element Name:		Bicarbonate			
Element Symbol:		HCO3			
Decimal Places:		4			
Value:		693.066179			
<u>Analysis Items</u>					
Element Name:		Magnesium			
Element Symbol:		MG			
Decimal Places:		4			
Value:		-1.000768			
<u>Analysis Items</u>					
Element Name:		Calcium			
Element Symbol:		CA			
Decimal Places:		4			
Value:		-0.999996			
<u>Analysis Items</u>					
Element Name:		Electrical Conductivity			
Element Symbol:		EC			
Decimal Places:		0			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Value: 1139.000000

Analysis Items

Element Name: Sodium
 Element Symbol: NA
 Decimal Places: 4
 Value: 272.000300

Well Reports

Well Report ID:	431167	Annular Seal Mat:	
Well Owner ID:	10698753	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	11110	Annular Seal Amt:	
Drill Instance ID:	8337868	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Unknown
Existing Well ID:		Drilling Start Dt:	1983/03/30
Date Received:		Drilling End Dt:	1983/04/12
Type of Work:	Chemistry	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	FALSE
Total Depth Drill:	150.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:		Encounter Gas?:	FALSE
Casing OD:	0.00	Flow Ctrl Install?:	FALSE
Casing Thickness:	0.00	Recommended Rate:	
Casing Bottom:	0.00	Recom Intake Depth:	
Liner Material:		Pump Installed?:	FALSE
Liner OD:	0.00	Pump Install Depth:	
Liner Thickness:	0.00	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	0.00	Well Disinfected?:	FALSE
Perforation by:		Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	TRUE
Screen Bot Fitting:		Is Validated?:	TRUE
Encounter Saline Water?:	FALSE		
Saline Water Depth:			
Potability Sample Taken?:	FALSE		
Potable Sample Sent to AENV?:	FALSE		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	FALSE		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			
Created by:			
Submitted by:			
Additional Comments:			

Well Owners

Well Owner ID: 10698753
 Owner Name: SANGUDO HIGH SCHOOL
 PO Box: 70
 Address: SANGUDO

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
City:					
Postal Code:		T0E 2A0			
Province:					
Country:					
<u>Drillers</u>					
Driller ID:		2533726			
Last Name:		DRILLER			
Middle Initial:		NA			
First Name:		UNKNOWN			
Journeyman No:		1			
Is Active?:		TRUE			
<u>Drilling Companies</u>					
Starting Well ID:		1973500			
Ending Well ID:		1973599			
Last Well ID Used:		1973599			
Company Name:		UNKNOWN DRILLER			
Street Address:		UNKNOWN			
City:		UNKNOWN			
Province:		AB			
Country:		CA			
Postal Code:					
E-Mail:		gwinfo@gov.ab.ca			
Is Active?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5590050			
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5993125			
Log Type:		Gamma			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		691755			
Diameter:		0.000000			
From:		0.000000			
To:		150.000000			

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Well ID:	431172	Elevation Source:	Not Obtained
Driller ID:	11110	Method of Drilling:	
Licence No:		GPS Obtained:	Not Verified
GIC Well ID:	431172	Boundary From:	
GOA Well Tag No:		Distance North:	
Elevation (ft):		Distance South:	
Depth (ft):		Distance East:	
Date Completed:		Distance West:	
Proposed Use:		Additional Desc:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Lot:				Validated?:	TRUE
Block:				Submitted?:	TRUE
Plan:				Location Locked?:	TRUE
Type of Work:				Longitude:	-114.91303700
Flowing Well:				Latitude:	53.89341500
Date Started:				LSD:	SW
Water Req Per Day:				Section:	1
Gas Present:				Township:	57
Oil Present:				Range:	7
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:					
Driller Mailing Address:					

Chemical Analysis

Chem Analysis ID: 2098427
 Well Report ID: 431172
 Sample No: 2166
 Sample Date: 1985/02/27
 Analysis Date: 1985/03/18
 Laboratory: VE
 Water Level:
 Aquifer:
 Remarks:

Analysis Items

Element Name: Sodium
 Element Symbol: NA
 Decimal Places: 4
 Value: 315.001100

Analysis Items

Element Name: Carbonate
 Element Symbol: CO3
 Decimal Places: 4
 Value: 14.001000

Analysis Items

Element Name: Total Alkalinity
 Element Symbol: TA
 Decimal Places: 4
 Value: 632.000000

Analysis Items

Element Name: Total Dissolved Solids
 Element Symbol: TDS
 Decimal Places: 0
 Value: 708.000000

Analysis Items

Element Name: pH
 Element Symbol: PH
 Decimal Places: 2
 Value: 8.600000

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<u>Analysis Items</u>					
Element Name:		Bicarbonate			
Element Symbol:		HCO3			
Decimal Places:		4			
Value:		743.070884			
<u>Analysis Items</u>					
Element Name:		Iron			
Element Symbol:		FE			
Decimal Places:		4			
Value:		-0.020000			
<u>Analysis Items</u>					
Element Name:		Ion Balance			
Element Symbol:		IONBAL			
Decimal Places:		4			
Value:		1.060000			
<u>Analysis Items</u>					
Element Name:		Silica			
Element Symbol:		SIO2			
Decimal Places:		4			
Value:		7.500000			
<u>Analysis Items</u>					
Element Name:		Calcium			
Element Symbol:		CA			
Decimal Places:		4			
Value:		-0.999996			
<u>Analysis Items</u>					
Element Name:		Magnesium			
Element Symbol:		MG			
Decimal Places:		4			
Value:		-1.000768			
<u>Analysis Items</u>					
Element Name:		Potassium			
Element Symbol:		K			
Decimal Places:		4			
Value:		0.820000			
<u>Analysis Items</u>					
Element Name:		Nitrate plus Nitrite			
Element Symbol:		NO2_NO3_N			
Decimal Places:		4			
Value:		-0.050400			
<u>Analysis Items</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Element Name:		Nitrite			
Element Symbol:		NO2			
Decimal Places:		4			
Value:		-0.050400			
<u>Analysis Items</u>					
Element Name:		Sulphate			
Element Symbol:		SO4			
Decimal Places:		4			
Value:		-5.007210			
<u>Analysis Items</u>					
Element Name:		Hydroxide			
Element Symbol:		OH			
Decimal Places:		4			
Value:		0.000000			
<u>Analysis Items</u>					
Element Name:		Fluoride			
Element Symbol:		F			
Decimal Places:		4			
Value:		2.330000			
<u>Analysis Items</u>					
Element Name:		total Kjeldahl nitrogen			
Element Symbol:		TKN			
Decimal Places:		4			
Value:		0.000000			
<u>Analysis Items</u>					
Element Name:		Total Phosphorus			
Element Symbol:		TP			
Decimal Places:		4			
Value:		0.000000			
<u>Analysis Items</u>					
Element Name:		Electrical Conductivity			
Element Symbol:		EC			
Decimal Places:		0			
Value:		1132.000000			
<u>Analysis Items</u>					
Element Name:		Total Hardness			
Element Symbol:		TH			
Decimal Places:		4			
Value:		-5.000000			
<u>Analysis Items</u>					
Element Name:		Chloride			
Element Symbol:		CL			
Decimal Places:		4			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Value:		6.010150			

Well Reports

Well Report ID:	431172	Annular Seal Mat:	
Well Owner ID:	10698757	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	11110	Annular Seal Amt:	
Drill Instance ID:	8337868	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Unknown
Existing Well ID:		Drilling Start Dt:	1985/02/27
Date Received:	1985/03/21	Drilling End Dt:	1985/03/18
Type of Work:	Chemistry	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	FALSE
Total Depth Drill:	210.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:		Encounter Gas?:	FALSE
Casing OD:	0.00	Flow Ctrl Install?:	FALSE
Casing Thickness:	0.00	Recommended Rate:	
Casing Bottom:	0.00	Recom Intake Depth:	
Liner Material:		Pump Installed?:	FALSE
Liner OD:	0.00	Pump Install Depth:	
Liner Thickness:	0.00	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	0.00	Well Disinfected?:	FALSE
Perforation by:		Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	TRUE
Screen Bot Fitting:		Is Validated?:	TRUE
Encounter Saline Water?:	FALSE		
Saline Water Depth:			
Potability Sample Taken?:	FALSE		
Potable Sample Sent to AENV?:	FALSE		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	FALSE		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			
Created by:			
Submitted by:			
Additional Comments:			

Well Owners

Well Owner ID:	10698757
Owner Name:	PETerson, FRED
PO Box:	511
Address:	SANGUDO
City:	
Postal Code:	T0E 2A0
Province:	
Country:	

Drillers

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Driller ID:		2533726			
Last Name:		DRILLER			
Middle Initial:		NA			
First Name:		UNKNOWN			
Journeyman No:		1			
Is Active?:		TRUE			
<u>Drilling Companies</u>					
Starting Well ID:		1973500			
Ending Well ID:		1973599			
Last Well ID Used:		1973599			
Company Name:		UNKNOWN DRILLER			
Street Address:		UNKNOWN			
City:		UNKNOWN			
Province:		AB			
Country:		CA			
Postal Code:					
E-Mail:		gwinfo@gov.ab.ca			
Is Active?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5993126			
Log Type:		Gamma			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5590051			
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		691756			
Diameter:		0.000000			
From:		0.000000			
To:		210.000000			

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Well ID:	431890	Elevation Source:	Not Obtained
Driller ID:	11110	Method of Drilling:	
Licence No:		GPS Obtained:	Not Verified
GIC Well ID:	431890	Boundary From:	
GOA Well Tag No:		Distance North:	
Elevation (ft):		Distance South:	
Depth (ft):		Distance East:	
Date Completed:		Distance West:	
Proposed Use:		Additional Desc:	
Lot:		Validated?:	TRUE
Block:		Submitted?:	TRUE
Plan:		Location Locked?:	TRUE
Type of Work:		Longitude:	-114.91303700
Flowing Well:		Latitude:	53.89341500
Date Started:		LSD:	SW
Water Req Per Day:		Section:	1
Gas Present:		Township:	57

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Oil Present:
Flow Rate:
Drilling Company:
Owner Mailing Address:
Driller Mailing Address:

Range: 7
Meridian: 5
DLS Coordinates: SW-1-57-7-5

Well Reports

Well Report ID:	431890	Annular Seal Mat:	
Well Owner ID:	10699474	Annular Seal from:	0.00
Driller ID:	2533726	Annular Seal to:	0.00
Drill Company ID:	11110	Annular Seal Amt:	
Drill Instance ID:	8337868	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Unknown
Existing Well ID:		Drilling Start Dt:	1987/11/17
Date Received:	1987/12/02	Drilling End Dt:	1987/11/25
Type of Work:	Chemistry	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	FALSE
Total Depth Drill:	0.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:		Encounter Gas?:	FALSE
Casing OD:	0.00	Flow Ctrl Install?:	FALSE
Casing Thickness:	0.00	Recommended Rate:	
Casing Bottom:	0.00	Recom Intake Depth:	
Liner Material:		Pump Installed?:	FALSE
Liner OD:	0.00	Pump Install Depth:	
Liner Thickness:	0.00	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	0.00	Well Disinfected?:	FALSE
Perforation by:		Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	TRUE
Screen Bot Fitting:		Is Validated?:	TRUE
Encounter Saline Water?:	FALSE		
Saline Water Depth:			
Potability Sample Taken?:	FALSE		
Potable Sample Sent to AENV?:	FALSE		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	FALSE		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			
Created by:			
Submitted by:			
Additional Comments:			

Well Owners

Well Owner ID: 10699474
Owner Name: SANGUDA PRIMARY SCHOOL
PO Box:
Address: SANGUDO
City:
Postal Code: T0E 2A0
Province:
Country:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Drillers

Driller ID: 2533726
Last Name: DRILLER
Middle Initial: NA
First Name: UNKNOWN
Journeyman No: 1
Is Active?: TRUE

Drilling Companies

Starting Well ID: 1973500
Ending Well ID: 1973599
Last Well ID Used: 1973599
Company Name: UNKNOWN DRILLER
Street Address: UNKNOWN
City: UNKNOWN
Province: AB
Country: CA
Postal Code:
E-Mail: gwinfo@gov.ab.ca
Is Active?: FALSE

Geophysical Logs

Geophysical Log ID: 5993127
Log Type: Gamma
Log Taken?: FALSE
Sent to AENV?: FALSE

Geophysical Logs

Geophysical Log ID: 5590052
Log Type: Electric
Log Taken?: FALSE
Sent to AENV?: FALSE

Boreholes

Borehole ID: 691757
Diameter: 0.000000
From: 0.000000
To: 0.000000

<u>3</u>	8 of 9	N/178.3	663.0 / -3.00	AB	WWIS
Well ID:	466765			Elevation Source:	Not Obtained
Driller ID:	24278			Method of Drilling:	
Licence No:				GPS Obtained:	Not Verified
GIC Well ID:	466765			Boundary From:	
GOA Well Tag No:				Distance North:	
Elevation (ft):				Distance South:	
Depth (ft):				Distance East:	
Date Completed:				Distance West:	
Proposed Use:				Additional Desc:	
Lot:				Validated?:	TRUE
Block:				Submitted?:	TRUE
Plan:				Location Locked?:	TRUE
Type of Work:				Longitude:	-114.91303700

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Flowing Well:				Latitude:	53.89341500
Date Started:				LSD:	SW
Water Req Per Day:				Section:	1
Gas Present:				Township:	57
Oil Present:				Range:	7
Flow Rate:				Meridian:	5
Drilling Company:				DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:					
Driller Mailing Address:					

Well Reports

Well Report ID:	466765	Annular Seal Mat:	Driven
Well Owner ID:	10725719	Annular Seal from:	59.00
Driller ID:	2533726	Annular Seal to:	60.00
Drill Company ID:	24278	Annular Seal Amt:	
Drill Instance ID:	8335552	Annular Seal Units:	
Drill Comp Well ID:		Drilling Method:	Rotary
Existing Well ID:		Drilling Start Dt:	1996/04/22
Date Received:	1996/06/18	Drilling End Dt:	1996/04/22
Type of Work:	New Well	Pack Type:	
Plug Date:		Pack Grain Size:	
Plug Material Type:		Pack Amount:	
Plug Mat Amount:		Pack Units:	
Plugged Units:		Loc Verify Method:	Not Verified
Well Use:	Domestic	Dist Casing Ground:	
Other Well Use:		Artesian Flow?:	FALSE
Total Depth Drill:	80.00	Artesian Flow Rate:	
Finish Well Depth:		Gas Depth:	
Casing Material:	Plastic	Encounter Gas?:	FALSE
Casing OD:	4.50	Flow Ctrl Install?:	FALSE
Casing Thickness:	0.24	Recommended Rate:	10.00
Casing Bottom:	60.00	Recom Intake Depth:	55.00
Liner Material:		Pump Installed?:	FALSE
Liner OD:	0.00	Pump Install Depth:	
Liner Thickness:	0.00	Pump Model:	
Liner Top:	0.00	Pump Horsepower:	
Liner Bottom:	0.00	Well Disinfected?:	FALSE
Perforation by:		Other Log:	
Screen Material:		Divert Water Src:	
Screen Size OD:	0.00	Divert Water Amt:	
Screen Attachment:		Diversion Dt/Time:	
Screen Top Fitting:		Is Submitted?:	TRUE
Screen Bot Fitting:		Is Validated?:	TRUE
Encounter Saline Water?:	FALSE		
Saline Water Depth:			
Potability Sample Taken?:	FALSE		
Potable Sample Sent to AENV?:	FALSE		
Approval Holder Sign Date:			
Drilling Report Given to Owner:	FALSE		
Model Output Rating:			
Remedial Action:			
Flow Control Description:			
Pump Type Installed:			
Created by:			
Submitted by:			
Additional Comments:	DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 2'.		

Well Owners

Well Owner ID:	10725719
Owner Name:	SUNTJENS, GEORGE
PO Box:	261
Address:	SANGUDO

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
City:					
Postal Code:		T0E 2A0			
Province:					
Country:					
<u>Drillers</u>					
Driller ID:		2533726			
Last Name:		DRILLER			
Middle Initial:		NA			
First Name:		UNKNOWN			
Journeyman No:		1			
Is Active?:		TRUE			
<u>Drilling Companies</u>					
Starting Well ID:		1720000			
Ending Well ID:		1724999			
Last Well ID Used:		1720085			
Company Name:		SUNSHINE DRILLING LTD.			
Street Address:		BOX 261			
City:		SANGUDO			
Province:		AB			
Country:		CA			
Postal Code:		T0E 2A0			
E-Mail:		gwinfo@gov.ab.ca			
Is Active?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		5664672			
Log Type:		Electric			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Geophysical Logs</u>					
Geophysical Log ID:		6067747			
Log Type:		Gamma			
Log Taken?:		FALSE			
Sent to AENV?:		FALSE			
<u>Boreholes</u>					
Borehole ID:		766056			
Diameter:		0.000000			
From:		0.000000			
To:		80.000000			
<u>Lithologies</u>					
Depth:		32.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		68.000000			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		57.000000			
Water Bearing:		FALSE			
Colour:		Yellow			
Description:					
Material:		Sand			
<u>Lithologies</u>					
Depth:		28.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Clay			
<u>Lithologies</u>					
Depth:		76.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		79.000000			
Water Bearing:		FALSE			
Colour:		White			
Description:		Hard			
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		80.000000			
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		43.000000			
Water Bearing:		FALSE			
Colour:		Gray			
Description:					
Material:		Clay & Rocks			
<u>Pump Tests</u>					
Pump Test ID:		10369504			
Test Date:		1996/04/22			
Start Time:		1900/01/12			
Taken from Top of Casing:		FALSE			
Static Water Level:		35.00			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
End Water Level:		52.00			
Water Removal Type:		Pump			
Water Removal Rate:		8.00			
Removal Depth from:		55.00			
Reason for Short Test:					
<u>Pump Test Items</u>					
Pump Test Item ID:		8171394			
Minutes:		120.00			
Pumping Depth:					
Recovery Depth:		35.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		8171393			
Minutes:		2.00			
Pumping Depth:					
Recovery Depth:		35.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		8171391			
Minutes:		0.00			
Pumping Depth:					
Recovery Depth:		55.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		8171392			
Minutes:		1.00			
Pumping Depth:					
Recovery Depth:		45.000000			

<u>3</u>	9 of 9	N/178.3	663.0 / -3.00	AB	WWIS
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Well ID:	497048	Elevation Source:	Not Obtained
Driller ID:	24278	Method of Drilling:	
Licence No:		GPS Obtained:	Not Verified
GIC Well ID:	497048	Boundary From:	
GOA Well Tag No:		Distance North:	
Elevation (ft):		Distance South:	
Depth (ft):		Distance East:	
Date Completed:		Distance West:	
Proposed Use:		Additional Desc:	
Lot:		Validated?:	TRUE
Block:		Submitted?:	TRUE
Plan:		Location Locked?:	TRUE
Type of Work:		Longitude:	-114.91303700
Flowing Well:		Latitude:	53.89341500
Date Started:		LSD:	SW
Water Req Per Day:		Section:	1
Gas Present:		Township:	57
Oil Present:		Range:	7
Flow Rate:		Meridian:	5
Drilling Company:		DLS Coordinates:	SW-1-57-7-5
Owner Mailing Address:			
Driller Mailing Address:			

Well Reports

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Well Report ID:	497048			Annular Seal Mat:	Driven
Well Owner ID:	10758833			Annular Seal from:	0.00
Driller ID:	2533726			Annular Seal to:	133.00
Drill Company ID:	24278			Annular Seal Amt:	
Drill Instance ID:	8335552			Annular Seal Units:	
Drill Comp Well ID:				Drilling Method:	Rotary
Existing Well ID:				Drilling Start Dt:	2000/08/29
Date Received:	2000/09/25			Drilling End Dt:	2000/08/31
Type of Work:	New Well			Pack Type:	
Plug Date:				Pack Grain Size:	
Plug Material Type:				Pack Amount:	
Plug Mat Amount:				Pack Units:	
Plugged Units:				Loc Verify Method:	Not Verified
Well Use:	Domestic			Dist Casing Ground:	
Other Well Use:				Artesian Flow?:	FALSE
Total Depth Drill:	205.00			Artesian Flow Rate:	
Finish Well Depth:				Gas Depth:	
Casing Material:	Plastic			Encounter Gas?:	FALSE
Casing OD:	6.00			Flow Ctrl Install?:	FALSE
Casing Thickness:	0.15			Recommended Rate:	10.00
Casing Bottom:	133.00			Recom Intake Depth:	195.00
Liner Material:	Plastic			Pump Installed?:	FALSE
Liner OD:	4.50			Pump Install Depth:	
Liner Thickness:	0.93			Pump Model:	
Liner Top:	110.00			Pump Horsepower:	
Liner Bottom:	150.00			Well Disinfected?:	FALSE
Perforation by:	Saw			Other Log:	
Screen Material:				Divert Water Src:	
Screen Size OD:	0.00			Divert Water Amt:	
Screen Attachment:				Diversion Dt/Time:	
Screen Top Fitting:				Is Submitted?:	TRUE
Screen Bot Fitting:				Is Validated?:	TRUE
Encounter Saline Water?:	FALSE				
Saline Water Depth:					
Potability Sample Taken?:	FALSE				
Potable Sample Sent to AENV?:	FALSE				
Approval Holder Sign Date:					
Drilling Report Given to Owner:	FALSE				
Model Output Rating:					
Remedial Action:					
Flow Control Description:					
Pump Type Installed:					
Created by:					
Submitted by:					
Additional Comments:		DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 2'.			

Well Owners

Well Owner ID: 10758833
Owner Name: BELLAND, NORMAN
PO Box:
Address: SANGUDO
City:
Postal Code: T0E 2A0
Province:
Country:

Drillers

Driller ID: 2533726
Last Name: DRILLER
Middle Initial: NA
First Name: UNKNOWN

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Journeyman No:</i>		1			
<i>Is Active?:</i>		TRUE			
<u>Drilling Companies</u>					
<i>Starting Well ID:</i>		1720000			
<i>Ending Well ID:</i>		1724999			
<i>Last Well ID Used:</i>		1720085			
<i>Company Name:</i>		SUNSHINE DRILLING LTD.			
<i>Street Address:</i>		BOX 261			
<i>City:</i>		SANGUDO			
<i>Province:</i>		AB			
<i>Country:</i>		CA			
<i>Postal Code:</i>		TOE 2A0			
<i>E-Mail:</i>		gwinfo@gov.ab.ca			
<i>Is Active?:</i>		FALSE			
<u>Perforations</u>					
<i>Perforation ID:</i>		4232319			
<i>From:</i>		145.000000			
<i>To:</i>		205.000000			
<i>Diameter:</i>		0.062000			
<i>Interval:</i>		3.000000			
<u>Geophysical Logs</u>					
<i>Geophysical Log ID:</i>		6061251			
<i>Log Type:</i>		Gamma			
<i>Log Taken?:</i>		FALSE			
<i>Sent to AENV?:</i>		FALSE			
<u>Geophysical Logs</u>					
<i>Geophysical Log ID:</i>		5658176			
<i>Log Type:</i>		Electric			
<i>Log Taken?:</i>		FALSE			
<i>Sent to AENV?:</i>		FALSE			
<u>Boreholes</u>					
<i>Borehole ID:</i>		760312			
<i>Diameter:</i>		0.000000			
<i>From:</i>		0.000000			
<i>To:</i>		205.000000			
<u>Lithologies</u>					
<i>Depth:</i>		178.000000			
<i>Water Bearing:</i>		FALSE			
<i>Colour:</i>		Gray			
<i>Description:</i>					
<i>Material:</i>		Sandstone			
<u>Lithologies</u>					
<i>Depth:</i>		201.000000			
<i>Water Bearing:</i>		FALSE			
<i>Colour:</i>		Gray			
<i>Description:</i>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		205.000000			
Water Bearing:		FALSE			
Colour:		Salt & Pepper			
Description:		Lost Circulation			
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		150.000000			
Water Bearing:		FALSE			
Colour:		Light Gray			
Description:		Lost Circulation			
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		198.000000			
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		124.000000			
Water Bearing:		FALSE			
Colour:		Brownish Gray			
Description:		Sandy			
Material:		Rocks			
<u>Lithologies</u>					
Depth:		68.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Clay & Rocks			
<u>Lithologies</u>					
Depth:		115.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:		Sandy			
Material:		Clay			
<u>Lithologies</u>					
Depth:		165.000000			
Water Bearing:		FALSE			
Colour:		Green			
Description:					
Material:		Sandstone			
<u>Lithologies</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Depth:		185.000000			
Water Bearing:		FALSE			
Colour:		Light Gray			
Description:		Medium Grained			
Material:		Sandstone			
<u>Lithologies</u>					
Depth:		26.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Clay & Rocks			
<u>Lithologies</u>					
Depth:		145.000000			
Water Bearing:		FALSE			
Colour:		Brown			
Description:					
Material:		Sandstone			
<u>Pump Tests</u>					
Pump Test ID:		10391570			
Test Date:		2000/08/31			
Start Time:		1900/01/12			
Taken from Top of Casing:		FALSE			
Static Water Level:		175.00			
End Water Level:		185.00			
Water Removal Type:		Air			
Water Removal Rate:		10.00			
Removal Depth from:		195.00			
Reason for Short Test:					
<u>Pump Test Items</u>					
Pump Test Item ID:		8273602			
Minutes:		0.00			
Pumping Depth:					
Recovery Depth:		185.000000			
<u>Pump Test Items</u>					
Pump Test Item ID:		8273603			
Minutes:		1.00			
Pumping Depth:					
Recovery Depth:		175.000000			
4	1 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00206279-00-00 LAC STE ANNE/DUST CONTROL/LAC STE ANNE COUNTY - F055-05-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://aww.alberta.ca/pdf/00206279-00-00.pdf			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>4</u>	2 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00390753-00-00 NA/CONSTRUCTION/LAC STE. ANNE COUNTY - F00390753 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00390753-00-00.pdf			
<u>4</u>	3 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00289002-00-00 LAC STE ANNE/DUST CONTROL/LAC STE ANNE COUNTY - F053-01-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:					
<u>4</u>	4 of 21	N/180.0	663.0 / -3.00	Lac Ste Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00185372-00-00 SANGUDO/WITHDRAWAL/VILLAGE OF SANGUDO/43 MOTORSPORT ASSOCIATION is held by Lac Ste Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00185372-00-00.pdf			
<u>4</u>	5 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00247361-00-00 LAC STE ANNE/DRILLING/LAC STE ANNE COUNTY - F055-05-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:					
<u>4</u>	6 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00237393-00-00 LAC STE ANNE/DUST CONTROL/LAC STE ANNE COUNTY - F0055-05-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00237393-00-00.pdf			
<u>4</u>	7 of 21	N/180.0	663.0 / -3.00	Bonavista Energy Corporation 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00151038-00-00 MAYERTHORPE/WITHDRAWAL/BONAVISTA PETROLEUM LIMITED is held by Bonavista Energy Corporation, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00151038-00-00.pdf			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
4	8 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00380898-00-00 NA/CONSTRUCTION/LAC STE. ANNE COUNTY - F00380898 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00380898-00-00.pdf			
4	9 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00194630-00-00 LAC STE ANNE/WITHDRAWAL/LAC STE ANNE COUNTY is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00194630-00-00.pdf			
4	10 of 21	N/180.0	663.0 / -3.00	Lac Ste Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00220139-00-00 SANGUDO/DUST CONTROL/VILLAGE OF SANGUDO - F057-07-W5 is held by Lac Ste Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00220139-00-00.pdf			
4	11 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00248491-00-00 LAC STE ANNE/DUST CONTROL/LAC STE ANNE COUNTY - F057-07-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00248491-00-00.pdf			
4	12 of 21	N/180.0	663.0 / -3.00	Lac Ste Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00231088-00-00 SANGUDO/DUST CONTROL/VILLAGE OF SANGUDO - F057-07-W5 is held by Lac Ste Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:		https://avw.alberta.ca/pdf/00231088-00-00.pdf			
4	13 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:		SW 01-057-07-W5			
Document Title:		Document 00186314-00-00 SANGUDO/WITHDRAWAL/LAC STE ANNE COUNTY is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.			
Document Url:					
4	14 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County	AUTH

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				5;7;57;1;SW AB	
Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00219606-00-00 LAC STE ANNE/DUST CONTROL/LAC STE ANNE COUNTY - F055-05-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:	https://avw.alberta.ca/pdf/00219606-00-00.pdf				
<u>4</u>	15 of 21	N/180.0	663.0 / -3.00	Diane Wannamaker 5;7;57;1;SW AB	AUTH
Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00367502-00-00 NA/OTHER (EG: FIREPROTECTION, ETC.)/DIANE WANNAMAKER - F00367502 is held by Diane Wannamaker, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:	https://avw.alberta.ca/pdf/00367502-00-00.pdf				
<u>4</u>	16 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00310947-00-00 LAC STE ANNE/DUST CONTROL/LAC STE ANNE COUNTY - F053-01-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:					
<u>4</u>	17 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00266887-00-00 LAC ST ANNE/DUST CONTROL/LAC STE ANNE COUNTY - F053-01-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:					
<u>4</u>	18 of 21	N/180.0	663.0 / -3.00	Lac Ste Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00207656-00-00 MAYERTHORPE/DUST CONTROL/VILLAGE OF SANGUDO - F057-07-W5 is held by Lac Ste Anne County, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:	https://avw.alberta.ca/pdf/00207656-00-00.pdf				
<u>4</u>	19 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW AB	AUTH
Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00254419-00-00 LAC STE ANNE COUNTY/DIVERSION/LAC STE ANNE COUNTY is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:					
<u>4</u>	20 of 21	N/180.0	663.0 / -3.00	Lac Ste. Anne County 5;7;57;1;SW	AUTH

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>AB</i>					
Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00230038-00-00 LAC STE ANNE/DUST CONTROL/LAC STE. ANNE COUNTY - F055-05-W5 is held by Lac Ste. Anne County, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:	https://avw.alberta.ca/pdf/00230038-00-00.pdf				

<u>4</u>	21 of 21	<i>N/180.0</i>	<i>663.0 / -3.00</i>	<i>Lac Ste Anne County 5;7;57;1;SW AB</i>	<i>AUTH</i>
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Legal Land Location:	SW 01-057-07-W5				
Document Title:	Document 00195037-00-00 SANGUDO/DUST CONTROL/VILLAGE OF SANGUDO is held by Lac Ste Anne County, under the provisions of the Water Act. This Licence is currently expired.				
Document Url:	https://avw.alberta.ca/pdf/00195037-00-00.pdf				

Unplottable Summary

Total: 0 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
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Unplottable Report

No unplottable records were found that may be relevant for the search criteria.

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. **Note:** Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.

Well Licenses:

Provincial [AERW](#)

Locations of Well Licenses made available by the Alberta Energy Regulator (AER) as ST37. Includes Active, Suspended, Abandoned, Drilled and Cased Oil, Gas, Crude Bitumen well licenses, as well as Observation, Injection, Disposal, and Undefined well licences.

Government Publication Date: Aug 31, 2023

Agriculture and Fisheries - Certificates of Approval:

Provincial [AGR](#)

This database contains approvals for processes pertaining to drying of alfalfa/forage/peat, feedlots, fish farms and feed/seed mills. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Alberta Oil and Gas Wells:

Provincial [AOGW](#)

The Alberta Energy Utilities Board - now the Alberta Energy Regulator (AER) - maintained a database of oil and gas wells drilled in the province of Alberta. The database contains information on well name, licensee name, license number, location, status, total well depth and date of final drilling. Please note that this database will not be updated, information on wells drilled after September 2003 can be found in the Oil and Gas Wells (OGW) database under the 'Private Source Database' section.

Government Publication Date: 1883-Sept 2003*

Authorizations:

Provincial [AUTH](#)

Locations associated with Water Act and Environmental Protection and Enhancement Act (EPEA) documents issued by Alberta Environment and Parks (AEP). Includes approvals, licences, registrations, authorizations, permits, and certificates. This list is made available by the Alberta Environment and Parks (AEP).

Government Publication Date: Jul 2023

Automobile Wrecking & Supplies:

Private [AUWR](#)

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Oct 31, 2023

Waste Management Facilities - Certificates of Approval:

Provincial [CAWD](#)

This database contains approvals for processes pertaining to waste management facilities (hazardous waste manifesting, waste disposal/incineration/open burning/processing/storage/treatment). Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993 - Jan 2020

Commercial Activity Risk - City of Calgary Business Licenses:

Provincial [CBL](#)

List of locations with Business Licences for the follow commercial activities: apartment building with 4 or more stories, auto-body shop, fabric cleaning, manufacturing, motor vehicle dealerships and service/repair, and salvage yard/auto wrecking. Data made available by the City of Calgary.

Government Publication Date: Sep 30, 2023

Dry Cleaning Facilities:

Federal [CDRY](#)

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2022

Confined Feeding Operations:

Provincial CFO

In 1991, the Natural Resources Conservation Board (NRCB) was created to review applications for approval of major natural resource development projects in Alberta. In January 2002, the NRCB was given the responsibility to regulate the Confined Feeding Operation industry. The Agricultural Operation Practices Act defines a confined feeding operation to be: "an activity on land that is fenced or enclosed or within buildings where livestock are confined for the purpose of growing, sustaining, finishing or breeding by means other than grazing, but does not include seasonal feeding and bedding sites." Under the AOPA regulations, all new or expanding confined feeding operations (CFOs) or manure storage facilities are required to make an application for Approval, Registration or Authorization to the NRCB before construction or expansion commences. Geographic coordinates were provided in DLS (Dominion Land Survey) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the Quarter section only.

Government Publication Date: 2002-Sep 2023

Chemical Processing Operations - Certificates of Approval:

Provincial CHEM

This database contains approvals for processes pertaining to the manufacturing and use of chemical products and pesticides. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Chemical Register:

Private CHM

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-Oct 31, 2023

Compost Facilities:

Provincial CMPS

A list of compost facility registrations made available by Alberta Environment and Parks (AEP). Composting facilities operating under a registration are required to follow the requirements in the Code of Practice for Compost Facilities, which outlines the minimum requirements for the design, construction, operation, and reclamation of compost facilities that accept up to 20,000 tonnes of feedstock per year.

Government Publication Date: Dec 31, 2019

Compressed Natural Gas Stations:

Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 -Aug 2023

Compliance and Convictions:

Provincial CONV

This listing of enforcement actions under the Alberta Environment and Protected Areas' current legislation is maintained by the Government of Alberta. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Unfortunately, from state of the data, the location that the address pertains to cannot be confirmed.

Government Publication Date: 1993-Dec 2022

Fuel Sales and Storage:

Provincial CTNK

List of locations with Business Licences for fuel sales and storage. Data made available by the City of Calgary.

Government Publication Date: Sep 30, 2023

Approved Oilfield Waste Management Facilities:

Provincial DRWD

A list of approved first and third party oilfield waste management facilities. First-party receivers can only accept upstream oilfield waste generated by one oil and gas company, but can come from various sites. Third-party receivers can accept upstream oilfield waste from various sites and various generators. This data is made available by the Alberta Energy Regulator (AER).

Government Publication Date: Sep 2023

Enforcement Action Summary:

Provincial EAS

This database maintained by the Alberta Energy Regulator (AER) - formerly the Energy Resources Conservation Board (ERCB) - summarizes high risk enforcement action 1, high risk enforcement action 2 (persistent noncompliance), high risk enforcement action 3 (failure to comply or demonstrated disregard), low risk enforcement action - global REFER and legislative/regulatory enforcement action. Fields will include licensee/company name, non-compliance event, date of enforcement, location, etc.

Government Publication Date: 2007-Aug 2023

Commercial Activity Risk - City of Edmonton Business Licenses:

Provincial [EBL](#)

List of locations with Business Licenses for the follow commercial activities: cannabis processing or cultivation, construction vehicle and equipment sales/rentals, livestock operation, general industrial, and vehicle repair. Data made available by the City of Edmonton.

Government Publication Date: Jul 31, 2023

Environmental Compliance Prosecutions:

Provincial [ECMP](#)

A list of concluded prosecutions made under environmental legislation. Listing made available by the Government of Alberta. This is not a complete and comprehensive list of environmental compliance outcomes: in Alberta, enforcement tools include warning letters, violation tickets, administrative penalties and orders, in addition to prosecutions.

Government Publication Date: Sep 30, 2023

Environmental Effects Monitoring:

Federal [EEM](#)

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches:

Private [EHS](#)

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Sep 30, 2023

Environmental Issues Inventory System:

Federal [EIS](#)

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Alberta Environment & Parks Storage Tanks:

Provincial [EPST](#)

List of storage tanks under the purview of Alberta Environment and Parks.

Government Publication Date: Jul 31, 2016

Environment Protection & Enhancement Act and Water Act Public Notices:

Provincial [EPWN](#)

A list of Public Notices of Applications, Decisions, and Revisions pertaining to applications made to Alberta Environment and Parks under the Water Act (WA) and Alberta Environment Protection and Enhancement Act (EPEA). Dominion Land Survey (DLS) locations provided by the source are subject to accuracy limitations inherent to the DLS system.

Government Publication Date: Sep 30, 2022

Environmental Site Assessment Repository:

Provincial [ESAR](#)

Environmental site assessments determine the quality of soil and groundwater of a site, particularly at retail gas stations and other commercial and industrial sites. A site assessment does not necessarily mean a site is, or ever was, contaminated. Alberta's Environmental Site Assessment Repository (ESAR) is an online, searchable database that provides scientific and technical information about assessed and/or reclaimed sites throughout Alberta. Search Alberta's ESAR using meridian, range, township, and section values at <http://www.esar.alberta.ca/esarmain.aspx> to gain access to reclamation certificates and/or associated files (applications, reports).

Government Publication Date: 1960-Jul 2023

Edmonton Vehicle Fueling Stations:

Provincial [ETNK](#)

A list of sites that have a City of Edmonton business license for Vehicle Fueling Stations. Listing made available by the City of Edmonton.

Government Publication Date: Jul 31, 2023

Facility List:

Provincial [FAC](#)

This database contains a complete list of new, active and suspended facilities in Alberta including batteries, gas plants, meter stations, and other facilities. Information provided includes: facility id, facility name, operator name, sub type description, location, facility I license no, and operational status; now includes EDCT (Energy Development Category Type) type and description. Made available by the Alberta Energy Regulator (AER) - formerly the Energy Resources Conservation Board (ERCB).

Government Publication Date: Up to Aug 31, 2023

Federal Convictions:

Federal

FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land:

Federal

FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Sep 2023

AER Incidents & Spills:

Provincial

FIS

Received from the Alberta Energy Regulator (AER) - formerly the ERCB (Energy Resources Conservation Board) and EUB (Energy Utilities Board) - this database, which used to be called EISL (Environmental Information System Listing), contains reported environmental incidents beginning in 1975. Descriptions include noise infractions, air quality emissions, oil spills and failures for pipelines, wells, plants, and batteries. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1975 - Oct 2023

Food Processing Operations - Certificates of Approval:

Provincial

FOOD

This database contains approvals for processes pertaining to the manufacturing of food products. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Federal Identification Registry for Storage Tank Systems (FIRSTS):

Federal

FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: Oct 31, 2021

Fuel Storage Tanks:

Provincial

FST

List tank sites in unaccredited areas of the Province. Includes active tank sites, sites with tanks temporarily out of service, and sites at which tanks have been removed from the ground. Information in this database was collected according to Alberta Regulation AR 291/95 Storage Tank System Management and to AR 52/98 Fire Code which was formerly the Alberta Fire Code Regulation, 1992 (AR 204/92). The Petroleum Tank Management Association of Alberta (PTMAA) regulated Storage Tanks in unaccredited areas of Alberta from 1994 until June 2020, at which point the Safety Codes Council assumed responsibility for services related to storage tank management.

Government Publication Date: 1985-Sep 2023

Waste Generators Summary:

Provincial

GEN

List of hazardous waste generators registered with Alberta Environment and Protected Areas (previously Alberta Environment and Parks). Under Alberta's Waste Control Regulation, Alta. Reg. 192/96, a generator is a person who consigns hazardous waste for storage, transport, treatment or disposal. As of 2007, the Government of Alberta no longer provides detailed information on each waste generator, such as approval number, class, and class description. Address information includes head office as well as operational locations, thus locations may or may not coincide with the physical location of the waste-generating activity.

Government Publication Date: 1993-Oct 2023

Greenhouse Gas Emissions from Large Facilities:

Federal

GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2020

Gas Processing Plants:

Provincial

GPP

The Alberta Energy Regulator (AER) - formerly the ERCB (Energy Resources Conservation Board) - has an inventory of all Gas Processing Plants in Alberta, with information such as location, names of plant, facility type, operator name, facility license, design capacities, etc.

Government Publication Date: Oct 2016-Aug 31, 2022

Alberta Environment's H.E.L.P. (Help End Landfill Pollution) Program Database:

Provincial [HELP](#)

The H.E.L.P. Data Tracking and Management Control System was created to provide tracking and management capabilities of industrial landfills in Alberta for the Department of Environment. Detailed information including company name, location, type of landfill, priority, score, status, use and much more is included in this database.

Government Publication Date: June 1988*

Horizontal Wells:

Provincial [HORW](#)

A horizontal well is created by drilling the lower part of the wellbore parallel to the zone of interest. These wells must be drilled directionally at an angle exceeding 80 degrees. Horizontal drilling can help increase resource recovery while minimizing surface impacts. While horizontal drilling has been used for decades, technological improvements have made it possible to combine horizontal drilling with hydraulic fracturing to help coax oil and natural gas out of tight rock. Today, more than half of western Canada's wells are being drilled horizontally. Horizontal well list includes: well location, licence number, well name, licensee name, final drilling date, total depth, and true vertical depth. List is made available by the Alberta Energy Regulator (AER) - formerly the Energy Resources Conservation Board (ERCB).

Government Publication Date: Mar 2015-Aug 31, 2023

Indian & Northern Affairs Fuel Tanks:

Federal [IAFT](#)

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Identification and Verification of Active and Inactive Land Disposal Sites:

Provincial [LDS](#)

In late 1981, Environment Canada and Alberta Environment initiated a project to identify and verify land disposal sites in the province of Alberta. A point scoring system was used to classify the sites into potential priority 1, priority 2 or priority 3 groups on the basis of the type of waste received at the sites and the site environment. Sites that, according to available information, may pose a hazard to public health and safety or the environment are classified as potential priority 1 sites.

Government Publication Date: Oct 1982*

Land Disposal Sites on Indian Reserves:

Provincial [LDSI](#)

In late 1981, Environment Canada and Alberta Environment initiated a project to identify and verify land disposal sites in the province of Alberta. This database specifically identifies land disposal sites on Indian Reserves. Information on each site is limited to: location, band, size and general comments.

Government Publication Date: Oct 1982*

Landfill Registrations:

Provincial [LNDF](#)

A list of landfill registrations made available by Alberta Environment and Parks (AEP). Landfills operating under a registration are required to follow the requirements in the Code of Practice for Landfills, which outlines the minimum requirements for the construction, operation and reclamation of landfills that accept 10,000 tonnes or less per year of non-hazardous and inert waste.

Government Publication Date: Mar 31, 2020

Lumber Related Operations - Certificates of Approval:

Provincial [LUM](#)

This database contains approvals for processes pertaining to the manufacturing of wood products, pulp and paper including the associated water treatment processes. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Canadian Mine Locations:

Private [MINE](#)

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Metals, Minerals and Building Materials Operations - Certificates of Approval:

Provincial [MMB](#)

This database contains approvals for processes pertaining to the manufacturing of building materials, metals, and mineral products. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Mineral Occurrences:

Provincial [MNR](#)

The AMDO (Alberta Mineral Deposits and Occurrences) application was created by the Minerals and Coal Geoscience Section of the Alberta Geological Survey as a database for mineral deposits in Alberta in the early 1990s. This is a one time inventory and will not be updated.

Government Publication Date: 1993-2003*

National Analysis of Trends in Emergencies System (NATES):

Federal [NATE](#)

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

PTMAA Non-Compliant Storage Tanks:

Provincial [NCST](#)

The Alberta Fire Code requires that storage tanks be registered. Tanks may not be registered because they do not meet minimum equipment standards or the owners have not made the annual registration application or paid the necessary registration fees. Some tank owners have installed tanks without a permit. This source contains information on facilities which have tanks that have ceased to be registered or have never been registered. It is maintained and updated by the Petroleum Tank Management Association of Alberta (PTMAA).

Government Publication Date: Sep 2016-May 31, 2020

National Defense & Canadian Forces Fuel Tanks:

Federal [NDFT](#)

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills:

Federal [NDSP](#)

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Oct 2022

National Defence & Canadian Forces Waste Disposal Sites:

Federal [NDWD](#)

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents:

Federal [NEBI](#)

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Jun 30, 2021

National Energy Board Wells:

Federal [NEBP](#)

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES):

Federal [NEES](#)

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory:

Federal

[NPCB](#)

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory 1993-2020:

Federal

[NPR2](#)

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of pollutant releases (to air, water and land), disposals, and transfers for recycling. The inventory, managed by Environment and Climate Change Canada, tracks over 300 substances. Under the authority of the Canadian Environmental Protection Act (CEPA), owners or operators of facilities that meet published reporting requirements are required to report to the NPRI.

Government Publication Date: Sep 2020

National Pollutant Release Inventory - Historic:

Federal

[NPRI](#)

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances. This data holds historic records; current records are found in NPR2.

Government Publication Date: 1993-May 2017

Operating and Abandoned Mines:

Provincial

[OAM](#)

This data is based on the 2001 edition (revised in 2003), published by the Alberta Energy and Utilities Board (EUB) now the Alberta Energy Regulator (AER). It was a one time inventory of Operating and Abandoned Coal Mines in Alberta. In 1905, Alberta began to catalogue coal mines by assigning a unique number to each operation. This database will provide information on location, mine #, mine name, mine company, life span, amount of coal produced, depth, thickness and other important information concerning the mine.

Government Publication Date: 2001, 2003*

Oil and Gas Facilities - ST102 & ST50:

Provincial

[OGF](#)

This list of batteries, gas plants, meter stations, and other facilities in the province of Alberta, made available as Reports ST102 (Parts A and B) and ST50 (A and B), is provided by the Alberta Energy Regulator (AER).

Government Publication Date: Oct 31, 2023

Oil and Gas Wells:

Private

[OGWW](#)

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Aug 31, 2023

Enforcement Orders:

Provincial

[ORD](#)

List of enforcement orders issued by Alberta Environment and Parks (AEP). Alberta Environment and Parks encourages compliance with environmental legislation. When individuals, companies, or municipalities fail to comply with legislation, the department has several options to ensure compliance. This listing, made available by the Alberta Government, includes Compliance Orders, Enforcement Orders, Environmental Protection Orders, Orders to Vacate, and Water Management Orders.

Government Publication Date: Oct 31, 2023

Alberta Orphan Wells:

Provincial

[ORP](#)

The Orphan Well Association (OWA) maintains lists of properties designated as orphan by the Alberta Energy Regulator (AER). Includes the location, well ID, licensee name and license number of orphan wells, sites, and facilities that have been identified for the purpose of abandonment, suspension, decommission, and reclamation. Legacy wells under long term care and custody are excluded. Please note that the OWA Orphan List also includes properties with production information from the AER. The OWA makes no representation, warranties, or guarantees, expressed or implied, for the fitness of the data with respect to its use.

Government Publication Date: Jan 2007-Aug 31, 2021

Canadian Pulp and Paper:

Private

[PAP](#)

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks:

Federal

PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Petrochemical, Coal and Gas Operations - Certificates of Approval:

Provincial

PCG

This database contains approvals for processes pertaining to petroleum, coal, and oil and gas processing. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Pesticide Register:

Provincial

PES

This is a list of Registered Pesticide Vendors in Alberta (retail and wholesale). The pesticide vendor list is comprised of vendors who have both audited AWSA pesticide storage facilities as part of their operation, and those vendors that do not have an audited AWSA pesticide storage facilities. Non-audited retail and wholesale vendors may be selling products that are not covered by the AWSA program, or may be utilizing external AWSA pesticide warehouses. Registration numbers and expiry dates are identified for each operation. If a registration number is not present, the operation's vendor registration is in the process of renewal.

Government Publication Date: 1998-Aug 2015

NPRI Reporters - PFAS Substances:

Federal

PFCH

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per- and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This listing of PFAS substance reporters includes those NPRI facilities that reported substances that are found in either: a) the Comprehensive Global Database of PFASs compiled by the Organisation for Economic Co-operation and Development (OECD), b) the US Environmental Protection Agency (US EPA) Master List of PFAS Substances, c) the US EPA list of PFAS chemicals without explicit structures, or d) the US EPA list of PFAS structures (encompassing the largest set of structures having sufficient levels of fluorination to potentially impart PFAS-type properties).

Government Publication Date: Sep 2020

Potential PFAS Handlers from NPRI:

Federal

PFHA

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per- and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This list of potential PFAS handlers includes those NPRI facilities that reported business activity (NAICS code) included in the US Environmental Protection Agency (US EPA) list of Potential PFAS-Handling Industry Sectors, further described as operating in industry sectors where literature reviews indicate that PFAS may be handled and/or released. Inclusion of a facility in this listing does not indicate that PFAS are being manufactured, processed, used, or released by the facility - these are facilities that potentially handle PFAS based on their industrial profile.

Government Publication Date: Sep 2020

Conglomerate and Waste Management Facilities:

Provincial

PITS

This database contains approvals for processes pertaining to the use of gravel pits, sand pits, and clay pits. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Alberta Private Sewage Disposal Permits:

Provincial

PSP

These permits are private sewage disposal permits that have been issued to owners and contractors. They would include various types of installations including holding tanks, septic tanks, packaged treatment plants, sand filters, fields, mounds, lagoons and open discharges. In 2003 Alberta Municipal Affairs started collecting information and issuing permits using an electronic permitting system. These records include all private sewage disposal permits within the jurisdiction of Alberta Municipal Affairs.

Government Publication Date: 2003-2013

PTMAA Approved (Open) Permits:

Provincial

PTAP

The Petroleum Tank Management Association of Alberta maintains a list of open permits it has issued within its jurisdiction. Prior to installing, removing, or altering tanks, storage tanks owners must receive approval in the form of a permit from the Authority Having Jurisdiction (in this case, PTMAA).

Government Publication Date: Apr 2016-Apr 30, 2020

Hazardous Waste Receivers Summary:

Provincial [REC](#)

A waste receiving location is any site or facility to which waste is transferred through a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents receivers of regulated wastes under Alberta's Waste Control Regulation, Alta. Reg. 192/96. As of 2007, Alberta Environment no longer provides detailed information on each waste receiver, such as approval number, class, and class description.

Government Publication Date: 1993-Aug 2018

Alberta Recyclers:

Provincial [RECY](#)

List of Alberta Recyclers under the following recycling programs: electronics processors, paint processors, tire processors, and used oil processors. Listing made available by the Alberta Recycling Management Authority (ARMA).

Government Publication Date: Oct 2023

Retail Fuel Storage Tanks:

Private [RST](#)

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Oct 31, 2023

Scott's Manufacturing Directory:

Private [SCT](#)

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Special Operation Classifications - Certificates of Approval:

Provincial [SPEC](#)

This database contains approvals for processes pertaining to classifications listed as special operations (i.e. locations owned/operated by municipalities, operations that involve the presence of pesticides). Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Inventory of Waste Disposal Sites:

Private [WDS](#)

This one time inventory is a compilation of information collected from each region and pertains to active, regulated waste disposal sites within the province of Alberta. In the past, waste disposal sites were registered with both regional and health offices. That process was dissolved and regional landfills were developed. There is no central source of this information. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1998*

Wastewater Operations:

Provincial [WSTE](#)

This database contains approvals for processes pertaining to wastewater treatment systems. Please note that, as per the source of this database, some of the geographic information may pertain to a head office or mailing address and not necessarily the site of operations to which the certificate applies. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location. Therefore, locations will be accurate to the quarter section only.

Government Publication Date: 1993-2012

Alberta Water Well Information Database:

Provincial [WWIS](#)

List of wells in the Alberta Water Well Information Database made available by Alberta Environment and Parks, containing approximately 500,000 records with nearly 5,000 drilling reports added annually. Some geographic coordinates have been provided in ATS (Alberta Township Survey system) format but do not contain offsets that are necessary to pinpoint a specific location; some locations will be accurate to the quarter section only. The Province of Alberta advises that the data may not be fully checked, and disclaims all responsibility for its accuracy. This data was previously collected from the Groundwater Information Center of the Natural Resource Service.

Government Publication Date: 1880-Aug 31, 2023

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.