Belle Plaine Potash Facility
Technical Report Summary
Effective December 31, 2024

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FORWARD LOOKING INFORMATION CAUTION

All statements, other than statements of historical fact, appearing in this report constitute “forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Statements regarding results depend on inputs that are subject to both known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented in this Report. Information that is forward-looking includes, but is not limited to, the following:

- Mineral resource and mineral reserve estimates.
- Assumed commodity prices and exchange rates.
- Assumed freight charges.
- Proposed and scheduled mine production plan.
- Projected mining and processing recovery rates.
- Capital cost estimates and schedule.
- Opcrating cost estimates.
- Closure costs estimates and closure requirements assumptions.
- Environmental, permitting and social risk assumptions.

Additional risks to the forward-looking information include:

- Changes to costs of production from what is assumed.
- Unrecognized environmental risks,
- Unanticipated reclamation expenses.
- Unexpected variations in production tonnage, grade or recovery rates.
- Failure of plant, equipment or processes to operate as anticipated.
- Accidents, labor disputes and other risks of the mining industry.
- Changes to tax rates.

1.0 Executive Summary

L I Introduction

Potash is the generic term used to describe potassium chloride, also known as muriate of potash. It is one of the three primary' crop nutrients required for plant growth and is not substitutable. Potash (and other fertilizer products derived from it) provides the overwhelming majority of potassium nutrient worldwide.

Potash is mined globally with the most significant mineral reserves and mineral resources deposited in Saskatchewan, Canada. Most potash deposits arc a mixture of potassium chloride (K.C1), sodium chloride (NaCl) and clay. The Mosaic Company is a leading producer of Canadian potash utilizing underground and solution mining methods.

The Belle Plaine Potash Facility, located in Saskatchewan, Canada started production in 1964 and was the first, and [illegible] is me largest potasn solution mining facility in me world, it consists or a Mining Area ano a processing riant ano nas an expected mine life based on mineral reserves of 63 years. In addition, there are significant inferred mineral resources that may extend the mine life beyond that, pending additional exploration work.

The 2024 Belle Plaine Potash Facility Technical Report Summary (the "Report") has been prepared by the Belle Plaine Qualified Persons and supports the mineral resource and mineral reserve estimates for the year ending December 31, 2024.

The Belle Plaine mineral resources and mineral reserves are reported in accordance with SEC Regulation S-K, Subpart 1300.

1.2 Property Location

The Belle Plaine Potash Facility is located in the Rural Municipality of Pcnse in the Province of Saskatchewan, Canada, just north of the TransCanada Highway (Hwy 1) approximately 32 miles (51 km) by road west of Regina, Saskatchewan. It is the oldest and largest potash solution mine in the world.

1.3 Ownership and Status

The Belle Plaine Potash Facility is 100% owned by Mosaic Canada ULC, a w'holly owned indirect subsidiary of The Mosaic Company. For the purposes of this Report, unless otherwise noted, The Mosaic Company and Mosaic Canada ULC will each be referred to interchangeably as Mosaic, as the context requires.

1.4 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

Mosaic leases approximately 53,131 acres of mineral rights for the Belle Plaine Potash Facility from the Crown under Subsurface Mineral Lease KL 106-R. The Belle Plaine Crown lease term is for a period of 21 years from July 2012, w'ith renewals at Mosaic's option for additional 21-year lease periods. In addition. Mosaic owns approximately 19,284 acres of mineral rights within the Belle Plaine area. All mineral properties owned or leased by Mosaic are for the "subsurface mineral" commodity as defined in *The Subsurface Mineral Tenure Regulations* (Saskatchewan).

Mosaic owns approximately 6,333 acres of surface rights in the Belle Plaine area. All infrastructure including the processing plant, TMA (Tailings Management Area), cluster sites and pipeline right of ways are located on Mosaic-owned land. Mosaic-owʳncd land not used for infrastructure is leased out for agricultural use.

Mosaic holds a Water Rights License issued by the Saskatchewan Water Security Agency for the Belle Plaine site. This License is subject to review by April 1, 2031 and covers the wʳater rights from Buffalo Pound Lake and makes references to the Approval to Operate Works associated with the pipeline and associated infrastructure connecting Belle Plaine to the SaskWater intake on Buffalo Pound Lake.

The Potash Crown Royalty is payable under *The Subsurface Mineral Royalty Regulations, 2017* (Saskatchewan). Mosaic pays royalties that are based on a royalty rate of 3% on the value of the potash produced from Crown mineral

lands. Value is determined as the average price realized by the producer in the year, as determined by revenues and sales under *The Potash Production Tax Regulations, 1990* (Saskatchewan).

1.5 Geology and Mineralization

The intracratonic Elk Point Basin is a major sedimentary geological feature in western Canada and the northwest USA. It contains one of the world's largest stratabound potash resources. The nature of this type of deposition is largely continuous with predictable depths and thickness. It is estimated to host >5 billion tonnes of ore (Orris, 2014) and is mined at a number of locations, including Mosaic's Belle Plaine, Esterhazy and Colonsay potash facilities. Saskatchewan potash represents almost 25% of the global potash production due to its relatively low-cost, bulk tonnage mining methods. (Orris. 2014).

The Prairie Evaporite hosts rich deposits of evaporite minerals including halite (NaCI), sylvite (KC1) and locally, carnallite. There are a number of insoluble clay-rich zones that are not recovered in the solution mining process. The potash deposit at Belle Plaine is uniform and laterally continuous. Solution mining methods can more easily accommodate any local variations in geological condition due to the non-selective concentrate mining process.

Three potash deposits of economic importance occur in Saskatchewan: the Esterhazy, Belle Plaine and Patience Lake Members. The Belle Plaine Potash Facility is a solution mine that recovers potash from each of the Esterhazy, Belle Plaine and Patience Lake Members. The following is a summary' of the key stratigraphic units for the Belle Plaine Potash Facility:

- <u>Patience Lake Member:</u> The uppermost member of the Prairie Evaporite Formation with potash production potential. Between the top of the Prairie Evaporite Formation and the top of the Patience Lake Member is a 0 to 45 ft. (0 to 14 m) thick unit of halite with clay bands called the salt back. The sylvite-rich horizons within the Patience Lake Member are mined using conventional underground mining techniques in the Saskatoon, Saskatchewan area and by solution mining techniques at Belle Plaine.

- <u>Belle Plaine Member:</u> The Belle Plaine Member underlies the Patience Lake Member and is separated from it by a zone of low grade sylvinitc. The Belle Plaine Member is mined using solution mining techniques at Belle Plaine.

- <u>Esterhazy Member:</u> The Esterhazy Member is separated from the Belle Plaine Member by the White Bear Marker Beds, a sequence of clay seams, low-grade sylvinite, and halite. The Esterhazy Member is mined using conventional underground techniques at Mosaic's Esterhazy Potash Facility in southeastern Saskatchewan and bv solution minine technioues at Belle Plaine.

1.6 Mineral Resource Estimate

The mineral resource estimates for the Belle Plaine Potash Facility are listed in Table 1-1. Mineral resources are reported exclusive of the mineral reserves. Figure 1-1 shows the distribution of the mineral resources and mineral reserves on the Belle Plaine property.

Table 1-1: 2024 Mineral Resources

	Inferred Mineral Resources			
Location	**Tons (M)**	**Tonnes (M)**	**Grade %KCI**	**Grade %KiO**
Belle Plaine	5,124	4,647	**31**	**19**

Notes to accompany mineral resource Table 1-1:

1. Mineral resource estimates were prepared by QP M. Tochor, a Mosaic employee.
2. The mineral resources arc reported as in-situ mineralization.
3. Mineral resources have an effective date of December 31, 2024.
4. Mineral resources arc reported exclusive of those mineral resources that have been converted to mineral reserves.

5. Mineral resources arc not mineral reserves and do not meet the threshold for mineral reserve modifying factors, such as estimated economic viability, that would allow for conversion to mineral reserves. There is no certainty that any part of the mineral resources estimated will be converted into mineral reserves.
6. Mineral resources assume solution mining.
7. Mineral resources amenable to a solution mining method are contained within a conceptual cluster and cavern design using the same technical parameters as used for mineral reserves.
8. No cut-off grade is used to estimate mineral resources. This is because the solution mining method used at Belle Plaine is not selective. At no point in the cavern development and mining process can a decision be made to mine or not mine the potash mineralization that is in contact with the mining solution. There is no control on what potash grade the mining solution dissolves to make a concentrate that is pumped to surface from the mining caverns for processing (Section 11.2).
9. Tonnages are in US Customary and metric units and are rounded to the nearest million tonnes.
10. Rounding as required by reporting guidelines may result in apparent summation differences.

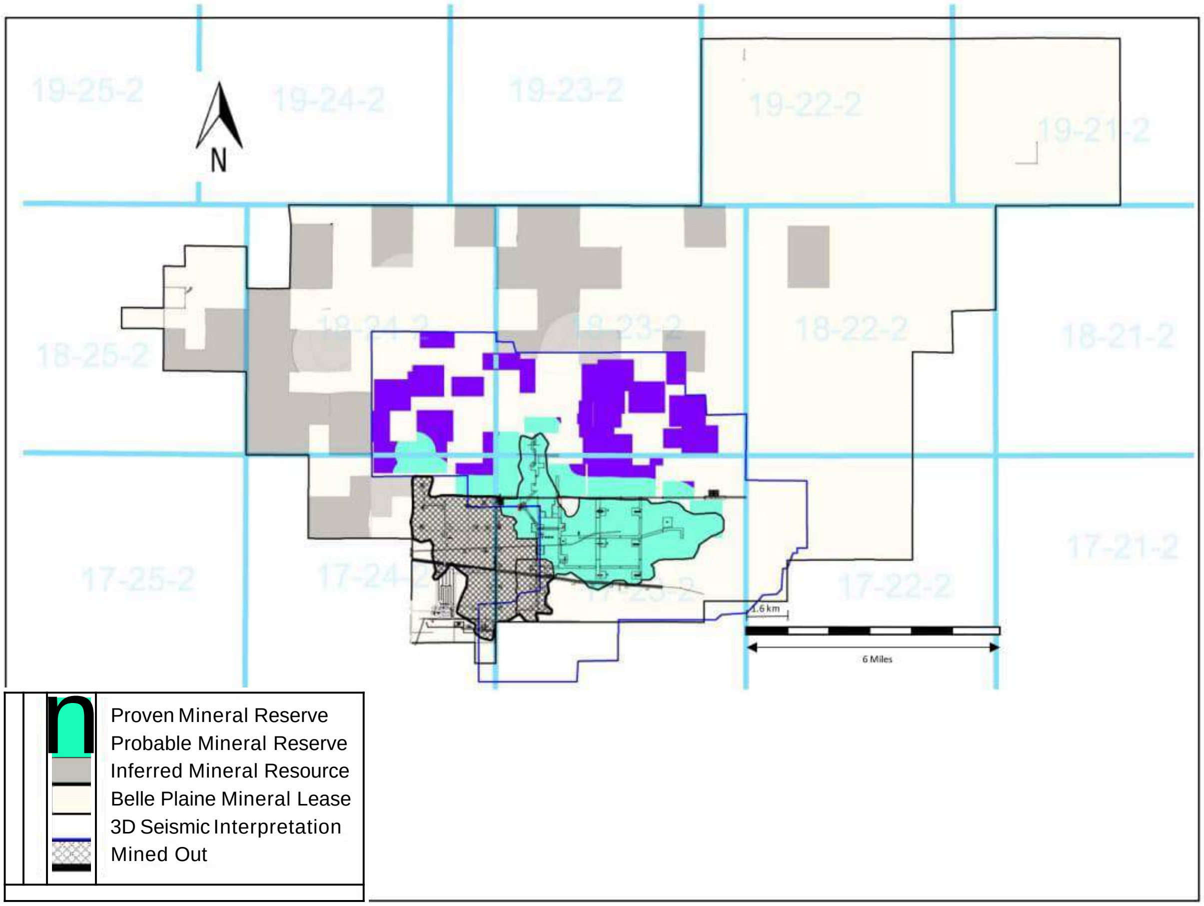


Figure 1-1: Location and Distribution of Mineral Resources and Mineral Reserves

1.7 Mineral Reserve Estimate

The mineral reserve estimate for the Belle Plaine Potash Facility is listed in Table 1-2. Figure 1-1 shows the distribution of the Belle Plaine mineral resources and mineral reserves. Mineral reserves are sub-divided into two confidence categories in Regulation S-K. 1300, proven and probable.

Table 1-2: 2024 Mineral Reserves

Category	Tons (M)	Tonnes (M)	Grade %KC1	Grade %KjO	Mining Recovery %	% Dilution
Proven	293.1	265.9	30.6	19.3	21.5%	0%
Probable	419.2	380.3	30.6	19.3	21.5%	0%
Proven + Probable	**712.3**	**646.1**	**30.6**	**19.3**	**21.5%**	**0%**

Notes to accompany mineral reserves Table 1-2:

1. Mineral reserve estimates were prepared by QP F. Hainstock, a Mosaic employee.
2. Mineral reserves have an effective date of December 31, 2024.
3. Mineral reserves are based on measured and indicated mineral resources only.
4. All mineral reserves arc mined by a solution mining method.
5. No cut-off grade is used to estimate mineral reserves. This is because the solution mining method used at Belle Plaine is not selective. At no point in the cavern development and mining process can a decision be made to mine or not mine the potash mineralization that is in contact with the mining solution. There is no control on what potash grade the mining solution dissolves to make a concentrate that is pumped to surface from the mining cavities for processing (Section 11.2).
6. Mine designs based on a solution mining method and design criteria are used to constrain measured and indicated mineral resources within mineable shapes.
7. Only after a positive economic test and inclusion in the Life of Mine (LOM) plan is the mineral reserve estimate included as a mineral reserve.
8. Tonnages are in U.S. Customary and metric units and are rounded to the nearest million tonnes. The grades are rounded tn one decimal nlace

to one decimal place.

9. Rounding as required by reporting guidelines may result in apparent summation differences.
10. The following KC1 commodity prices were used to assess economic viability for the mineral reserves, but were not used for cut-off purposes, 2025-5211/tonne, 2026-$263/tonne, 2027-S281/tonne, 2028-S256/tonne, 2029-S261/tonne and for the LOM $314/tonne.
11. A USS/CS exchange rate of 1.32 was used to assess economic viability for the mineral reserves but were not used for cut-off purposes.

1.8 Mining Method

The Belle Plaine Potash Facility utilizes a solution mining process where paired wells are directionally drilled, cased, and cemented to the base of the potash beds. Solution mining techniques are used to target mining of the potash (KCI) bedding while minimizing mining of the halite salts (NaCl). Current mining practices allow for all three potash beds in the formation to be mined. During the mining process, the two wells are mined to connect with each other underground forming a cavern, allowing one well to become the feed well and the other well to become the return well. Water or a weaker brine, is injected into the cavern to return a salt saturated and potash rich brine. This fluid is pumped through pipelines from the Mining Area and sent to the Refinery complex as raw feed for further processing. The total life cycle of each cavern is approximately 25 years. Once the potash recovery is exhausted, each cavern will be decommissioned.

The Mining Area capability is scheduled to ramp up to support a finished tonnage projection of 3.30M tons (3.00M tonnes) per year and will do so until drilling is completed in the year 2066 at which point there is a ramp down in production until 2084.

The 2024 Belle Plaine Life of Mine Plan (LOM plan) based on mineral reserves has an expected total mine life of 60 years, ending in 2084 and yielding an estimated total of 173.7M tons (157.7M tonnes) of final product KCI.

1.9 Recovery Methods

The Belle Plaine Potash Facility processing plant receives KCl-NaCl rich brine, known as raw feed, from the Mining Area and achieves KCI recovery through the Refinery and Cooling Pond areas. Well-established solubility curves of FhO-NaCI-KCI systems arc utilized to monitor the selective dropout of products in the process.

The Refinery Area subjects the raw feed brine from the Mining Area to changing temperatures and pressures that selectively precipitates the NaCl and then the KCI out of solution in different stages of the process. Selective drop out of NaCl is achieved through two parallel lines of evaporators that heat the brine with steam, that is generated on-site through natural gas fired boilers. The heating of the raw feed brine results in water liberation, causing NaCl to concentrate in the brine and then precipitate out of solution. After the brine is conditioned in the Evaporator Circuit, it is pumped to the Thickener Area for clarification and then pumped into a Crystallizer Circuit for KCI recovery. The Crystallizer Circuit subjects the process brine to a vacuum that allows further boiling, creating a cooling effect on the brine. As the brine cools, the KCI is forced to precipitate out of solution. The solid KCI is withdrawn from the Crystallizer vessel as a slurry and pumped to the Dewatering and Drying Area. The brine that overflows the Crystallizer Circuit, that still contains some dissolved KCI and NaCl, is fed to the Cooling Pond Area for further KCI recovery.

The Cooling Pond Area consists of multiple ponds that arc fed with brine from the Refinery and with raw feed brine from the Mining Area. The ponds facilitate atmospheric cooling, that allows KCI to preferentially precipitate out of the brine and then settle to the bottom of the ponds. The Cooling Pond Area contains several KCI dredges that are comprised of a cutter wheel that fluidizes the deposited KCI from the bottom of a cooling pond and a slurry pump that moves the KCI slurry toward the Dewatering and Drying areas.

The Dewatering and Drying Area removes the bulk of the brine in the slurry through process equipment and then conveys the KCI product into natural gas fired industrial dryers. The dried KCI product is then fed into the Sizing Area and/or Compaction Area for compacting, crushing, and screening processes to achieve product size specifications. Finished product is then conveyed to the on-site Storage Area, where it is held until being reclaimed, rescreened and shipped off site, primarily through rail.

Site production is expected to increase to a stabilized 3.3M tons/year (3.0M tonnes/year) until the year 2066, when the Belle Plaine Potash Facility expects to stop drilling new cavities and ramp down production to 2084. The Belle Plaine Potash Facility’s ability to produce at a sustained 3.3M tons/year (3.0M tonnes/year) in future years was validated through a “proving run” completed in 2016/2017, when the Belle Plaine Potash Facility achieved a proven nameplate capacity of 4.3M tons/year (3.9M tonnes/year). The total site processing recovery is expected to average 79% throughout the remaining life of the mine and is dependent on sustained drilling activities. Future projects arc modeled with mass and energy balance software to predict the future production and recovery capabilities.

1.10 Infrastructure

The Belle Plaine Potash Facility is purposely situated in close proximity to relevant existing infrastructure. The TransCanada Pipeline passes through the Mining Area, a large body of water is located less than 12.5 miles (20 km) away, there is easy access to rail, and two significant population centers arc located within 30 miles (48 km) of the Belle Plaine Potash Facility.

The Belle Plaine Potash Facility has the infrastructure in place to meet the current production goals LOM plan. The current infrastructure includes major road and highway access, railway support from Canadian National and Canadian Pacific railways, SaskPowcr supplied electricity, TransGas supplied natural gas and potable and non-potablc water supplied from a local fresh water source. The current Tailings Management Area (TMA) footprint is expected to meet the maximum volume and deposition rates from the 2024 LOM plan.

Infrastructure mav be added to increase reliabilitv of the existine product lines or to provide production flexibilitv.

The assets currently in place are maintained through a robust workflow process that focuses on proactive inspections and preventative maintenance while trying to minimize reactive maintenance.

The site is projected to be well positioned to operate effectively by continuing to maintain the built infrastructure and renewing the long-term agreements for the site's water, electricity, natural gas, and logistics needs. A long-term Tailings Management Area Plan is in place to support the production at the levels indicated in the 2024 LOM plan.

Il is expected that some infrastructure will need to be replaced as some infrastructure reaches end of life. This has been factored into the capital cost requirements and will be planned and executed, accordingly. A focus on precision maintenance and reliability' centered maintenance will extend the life of the majority of assets to align with the 2024 LOM plan.

1.11 Markets and Contracts

The Belle Plaine Potash Facility produces several potash products that are sold into the crop nutrient (to be utilized as fertilizer) and industrial markets, domestically, defined here as the U.S. and Canada, as well as export markets.

Due to the solution mining nature of the Belle Plaine Potash Facility, the potash produced contains fewer impurities and has a higher content of potassium (i.c., a K?O content of ~62% versus the more common 60% associated with the majority of potash products). The higher-grade results in a modestly higher market price for Belle Plaine potash. The Belle Plaine Potash Facility produces granular, fine, standard grade and industrial products.

The global market for potash is estimated to be approximately 72M tonnes in 2024 and has grown at a compound annual growth rate of around 2.5% over the past thirty years. In other words, potash demand over the long term has been rather linear, though with significant year-to-year variability. Going forward, global potash demand growth is expected to continue this trend, with Mosaic and independent analysts projecting a growth rate of 2 to 3% per annum. This growth ensures sufficient market demand for continued production at the Belle Plaine Potash Facility.

1.12 Environmental, Permitting and Social Considerations

All potash facilities and processing plants operate pursuant to federal, provincial and local environmental regulations. Accordingly, permits, licenses and approvals are obtained specific to each site, based on project specific requirements. Mosaic also has routine interactions with government officials and agencies related to agency inspections, permitting and other environmental matters. The information as supplied regarding the management of all environmental aspects, permitting and social considerations at Mosaic facilities is guided by Mosaic's Environmental, Health and Safety Policy, the Mosaic Management System Program and Procedures, and current regulatory requirements.

1.13 Capital Cost and Operating Cost Estimates

The capital cost estimates include mine, processing plant, loading, maintenance, mobile equipment, land management and regulatory capital. The total capital is for the 2024 LOM plan (2025 to 2084) and 2024 mineral reserves is estimated at US $3,453M.

The Belle Plaine mining cash costs, processing cash costs, Central and Functional Overhead indirect allocated costs, selling, general and administrative costs and taxes and other non-production costs include Canadian Resource Taxes, Canadian Income Taxes and any other non-production costs are estimated at US SI3.893M for the 2024 mineral reserves and LOM plan. The operating cost forecasts are based on a combination of historical performance and calculations from first principles to consider variation in production rates and expected process improvements.

1.14 Economic Analysis

The financial model that supports the mineral reserve and mineral resource declaration is a standalone model that calculates annual cash Hows based on scheduled ore production, assumed processing recoveries, commodity sale prices and USS/CS exchange rates, projected operating and capital costs, estimated taxes along with anticipated closure and reclamation costs.

The analysis indicates that there is significant economic value associated with mining, refining and selling the potash mineral reserves at Belle Plaine, given the economic assumptions and operating parameters considered. The financial model reflects a breakeven after-tax internal transfer price of $108 USD/Tonne, which is significantly lower than the LOM price of $314 USD/Tonne a discount rate of 10.6%.

A sensitivity' analysis of the financial model by varying product price, total operating cost, total capital cost and foreign exchange projects that the financial results for the Belle Plaine are robust and considered low risk.

1.15 Interpretations and Conclusions

Under the assumptions and technical data included in this Technical Report Summary, the Belle Plaine Potash Facility LOM plan utilizing mineral reserves only, yields a minimum product value of $108 USD/Tonne results in a SO NPV, which is significantly lower than the LOM price of $314 USD/Tonne. This supports the 2024 SEC Regulation S-K, Subpart 1300 disclosure of the Belle Plaine Potash Facility mineral reserve estimates.

1.16 Recommendations

The following recommendations for additional work arc focused on improving and maintaining important processes and ensuring execution of the 2024 LOM plan.

- The Land and Minerals Strategy will continue to develop and align with the LOM plan to ensure timely acquisition of Mineral Rights to support the mineral resource and mineral reserve estimates and LOM plan.
- Mosaic will continue to investigate and consider new innovations in mining and processing technology.
- Additional density' information will be obtained from future core drilling campaigns.
- Additional 3D seismic data should be collected and processed in strategic areas to ensure the continuity of available data for mine planning.
- Continue to update and maintain the geological databases.
- The seismic model supporting the mineral resource and mineral reserve estimates will continue to be developed and improved as seismic data collection and interpretation improves.

2.0 Introduction

2.1 Registrant

The 2024 Belle Plaine Potash Facility Technical Report Summary has been prepared by the Belle Plaine Qualified Persons for The Mosaic Company, headquartered in Tampa, Florida, USA.

2.2 Purpose and Terms of Reference

The Report was prepared to support the mineral resource and mineral reserve estimates for the year ending December 31,2024.

i ne mineral resources ana mineral reserves are reponea in accordance wun act Regulation s-is., suopan i juu.

For the purposes of this Report, unless otherwise noted, The Mosaic Company and Mosaic Canada ULC will each be referred to interchangeably as Mosaic, as the context requires.

Where practicable, measurement units used are U.S. Customary units with metric unit conversions included. U.S. Customary units are used in this Report when discussing the mining and processing facilities, including equipment capacities and pumping rates. Some analytical results are also reported using U.S. Customary units.

Unless otherwise noted, monetary units are in United States dollars (USS).

2.3 Abbreviations and Units

Table 2-1: List of Units and Abbreviations

3D	Three dimensional
AER	Annual Environmental Report
AFIA	American Feed Industry Association
AOI	areas of interest
ATO	Approval to Operate Pollutant Control Facilities
Avg	average
API	An API unit is a unit of radioactivity used for measuring natural gamma ravs in the ground
BOL	Bill of Lading
°C	degree Celsius
C$	Canadian dollar(s)
CBL	Cement Bond Log
CFIA	Canadian Food Inspection Association
cm	centimeter
CNSC	Canadian Nuclear Safety Commission
COPC	constituents of potential concern
CRF	Combined Return Flow
Crown	The Province of Saskatchewan
CS	cluster sites
D&R	Decommissioning and Reclamation
DDR	Discharge Reporting
EA	Environmental Assessment
ElA	Environmental Impact Assessment
E1S	Environmental Impact Statement
El	elevation
EM	electromagnetic
EPA	Environmental Protection Agency
EPCM	Engineering, Procurement and Construction Management
EPP	Environmental Protection Plan
°F	degree Fahrenheit
Feast.	forecast
FOS	Factor of Safety
11.	foot, feel
112	square foot, feet
IO	cubic foot, feet
g/L	grams per litre
gal	US gallon
GJ	giga joules
gm	gram(s)
US gpm	US gallon per minute
GREC	Gamma Ray Equivalent Calculation
Ha	hectare
hp	horsepower
hr	hour(s)
HREM	High resolution electromagnetic
IEC	International Electrotechnical Commission
ISO	International Standards Organization
KiO	Potassium Oxide, K2O - 0.6317 x KCI.
KCI	Potassium Chloride
kg	kilogram
km	kilometers)
kV	kilovolt
kVA	kilovolt x amps
kW	kilowatt
kWh	kilowatt hour
kWh/t	kilowatt hour per ton
lbs.	pound(s)
LOM	Life of Mine
m	meters
M	million(s)
MCC	Motor Control Center
MD	Measured Depth
MER	Ministry of Energy & Resources
MOE	Ministry of Environment
MVA	mega volt amp
MW	mega watt
NPV	net present value
OCHL	Original Cased Hole Log
PCB	Polychlorinated biphenyls
P. Eng.	Professional Engineer
P. Geo.	Professional Geoscientist
PLS	Product Loading System
PPm	parts per million
Psi	pounds per square inch
psi.g	Pounds per square inch gauge pressure
QA	Quality assurance
QC	Quality control
QCL	Quality Control Lab
QP	Qualified Person
SAP	Enterprise software to manage business operations and customer relations
SEC	U.S. Securities and Exchange Commission
SGS	Inspection, verification, testing and certification company
TMA	Tailings Management Area
tonnes	metric tonnes (2,204 lbs.)
tons	US Customary short tons (2,000 lbs.)
tons/hour	tons per hour (US)
tons/ycar	tons per year (US)
tpd	tons per day (US)
TVD	True Vertical Depth
USS	United States dollar(s)
V	volt(s)
w	watt(s)
wt.%	weight percent
Yr.	year(s)

2.4 Qualified Persons (QP)

Table 2-2 outlines the people that served as Qualified Persons (QPs) for the Belle Plaine Potash Facility Technical Report Summary as defined in SEC Reg. S-K, Subpart 1300.

Table 2-2: Qualified Persons

QP Name	Company	Qualification	Position/Title	Site Visit/ Inspection Dates	Section of Responsibility
Francis Hainstock	The Mosaic Company	P. Geo.	Senior Geologist	July 9, 2024	11, 12
Monica Tochor	The Mosaic Company	P. Geo.	Manager, Geology and Reserves	August 12,2024	6, 7, 8, 9,
Paul Plosz	The Mosaic Company	P. Eng.	Process Engineer Lead	Full time Belle Plaine employee	10, 14
Jarid Hancock	The Mosaic Company	P. Eng.	Senior Mine Manager	Full time Belle Plaine employee	13, 16, 18, 19
Matthew Swedburg	The Mosaic Company	P. Eng.	Senior Manager Maintenance and Engineering	Full time Belle Plaine employee	15
Aimce Ottcnbreit	The Mosaic Company	P. Eng.	Senior Manager Environmental	November 6, 2023	17.1, 17.2, 17.3, 17.4, 17.5, 17.7, 17.8, 17.9, 17.10, 17.11
Lorelei Duke	The Mosaic Company	P. Eng.	Senior Manager Geotechnical Engineering and Planning	August 12, 2024	17.3, 17.6, 17.8

2.5 Effective Dates

There arc a number of effective dates:

- Date of the mineral resource estimates: December 31, 2024.
- Date of the mineral reserve estimates: December 31, 2024.
- Date of supply of the last information on mineral tenure and permitting: December 2024.
- Date of capital estimation: September 2024.
- Date of operating cost estimation: September 2024.
- Date of reclamation cost estimate: September 2024.
- Date of market analysis: August 2024.
- Date of economic analysis: September 31, 2024.

The overall effective date of the Report is taken to be the date of the mineral resource and mineral reserve estimates and is December 31, 2024.

2.6 Information Sources and References

The reports and documents listed in Table 2-3 and Section 24.0 (References) of this Report were used to support the preparation of this Report.

Table 2-3 Reliance on Other Experts

Expert	Title	Topic	Supporting Section	Date Received
RESPEC	Mosaic Belle Plaine Regional Geology	Lateral Continuity of Ore Body	Sections 6, 11 and 12	February 2021
RESPEC	Mosaic BP Local Geology	Lateral Continuity of Ore Body	Sections 6, 11 and 12	April 2021
RESPEC	Gamma Ray Equivalent Calculations	Grade from gamma	Section 11 and 12	November 2020
RESPEC	Density of the Prairie Evaporite	Confirm historic density value	Section 11 and 12	April 2021
SRC	Core Analysis	Standard Lab Process	Section 8	June 2020
SRC	Density Analysis	Standard Lab Process	Section 8	March 2021
RESPEC	Core Logging	Standard Data collection process	Section 8	June 2020
Boyd Exploration Consultants Ltd.	2001 Belle Plaine 3D - Final Report	Seismic Survey	Section 7	March 2003
Boyd Exploration Consultants Ltd.	2005 Belle Plaine 3D - Final Report	Seismic Survey	Section 7	February 2008
Boyd Exploration Consultants Ltd.	2008 Belle Plaine 3D - Final Report	Seismic Survey	Section 7	April 2010
RPS Energy Canada Ltd.	2010 Pense 3D - Final Report	Seismic Survey	Section 7	August 2013
SNC-Lavalin	2017 TMA Development Plan Update commissioned by Mosaic Potash Belle Plaine	Tailings Storage Facilities information	Section 15	2017

2.7 Previous Technical Report Summaries

A Technical Report Summary for the Belle Plaine Potash Facility was completed in 2021 (Belle Plaine Potash Facility Technical Report Summary-Effective December 31, 2021).

3.0 Property Description

3.1 Introduction

The Belle Plaine Potash Facility is located in the Rural Municipality of Pcnsc (No. 160) in the province of Saskatchewan, Canada. It is just north of the TransCanada Highway (Hwy 1) and approximately 32 miles (51 km) west of Regina (Figure 3-1). It is the oldest and largest potash solution mine in the world. Coordinates for the Belle Plaine facility are +50° 25’ 39.57”, -105° 11’ 53.87” +50° 25’ 39.57”. -105° 11’ 53.87”.

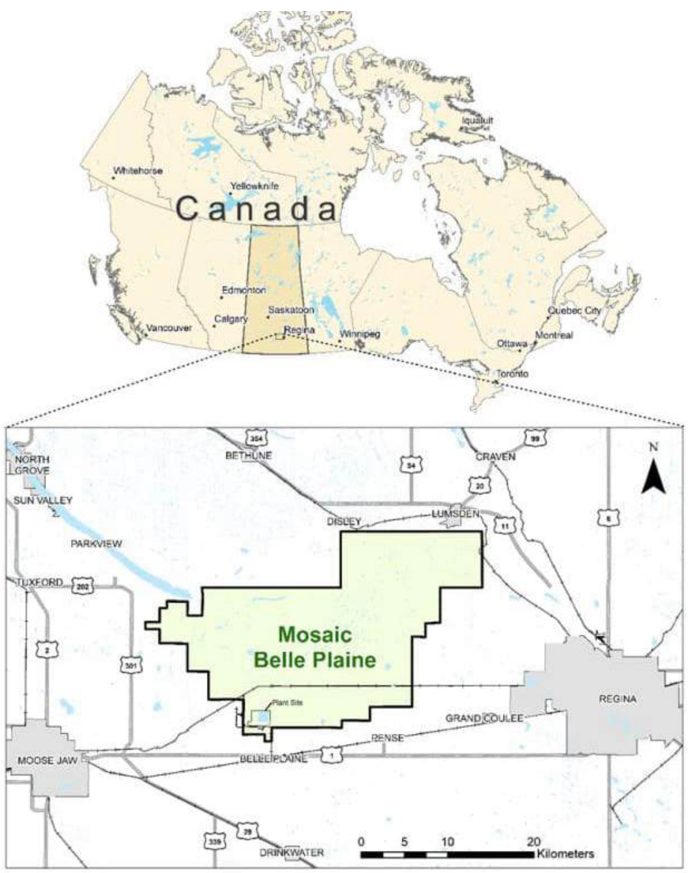


Figure 3-1: Location Map

3.2 Property and Title

3.2.1 Mineral Title

In Saskatchewan, the Dominion Land Survey is the method used to divide the province into 1 sq mile (2.6 km^2) sections for land grid purposes. Township lines are established 6 miles (9.7 km) apart from south to north starting at the U.S. border, and range lines are established 6 miles (9.7 km) apart east to west starting at key meridians aligned with lines of longitude. This frames a 6 by 6 mile (9.7 by 9.7 km) township grid, containing 36 one square mile (approximately 640 acre) sections. Sections are further subdivided into 160 acre quarter sections and can be again subdivided into 40 acre legal subdivisions (LSD). These rights are all in the near vicinity of the processing facility (Lat: 50.429673, Long: -105.202404) primarily to the north and east.

In Saskatchewan, ISC, a registry and information management services company, provides land titles management services for all surface and mineral properties on behalf of the Province of Saskatchewan. The Saskatchewan land titles registry can be accessed at www.isc.ca. Subsurface mineral rights arc subject to separate ownership and title from surface mineral rights. Mosaic leases 53,131.66 acres of mineral rights from the Crown under Subsurface Mineral Lease KL 106-R (Figure 3-2). Table 3-1 outlines additional information regarding KL 106-R. Table 3-2 outlines the Lease KL 106-R split by township and section. The KL 106-R lease term is for a period of 21 years from July 2012, with renewals at the Company's option for additional 21-year periods.

In addition, Mosaic owns 19,284 acres of mineral rights (Figure 3-3) within the Belle Plaine area (Table 3-3). All mineral titles owned or leased by Mosaic include "subsurface minerals", which under *The Subsurface Mineral Tenure Regulations, 2015* (Saskatchewan) means "all-natural mineral salts of boron, calcium, lithium, magnesium, potassium, sodium, bromine, chlorine, fluorine, iodine, nitrogen, phosphorus and sulfur, and their compounds, occurring more than 197 ft. (60 m) below the surface of the land." Other commodities (e.g., petroleum and natural gas, coal, etc.) may be included within mineral rights Mosaic leases or owns, but are not specifically sought after when acquired.

Within the total acreage leased from the Crown or owned by Mosaic are parcels of land where Mosaic owns or leases less than a 100% share of the mineral rights. In order to potentially mine these properties. Mosaic would need to acquire 100% control ether by lease or ownership. Acreages currently not mineable due to less than 100% control (partial control) are listed in Table 3-4.

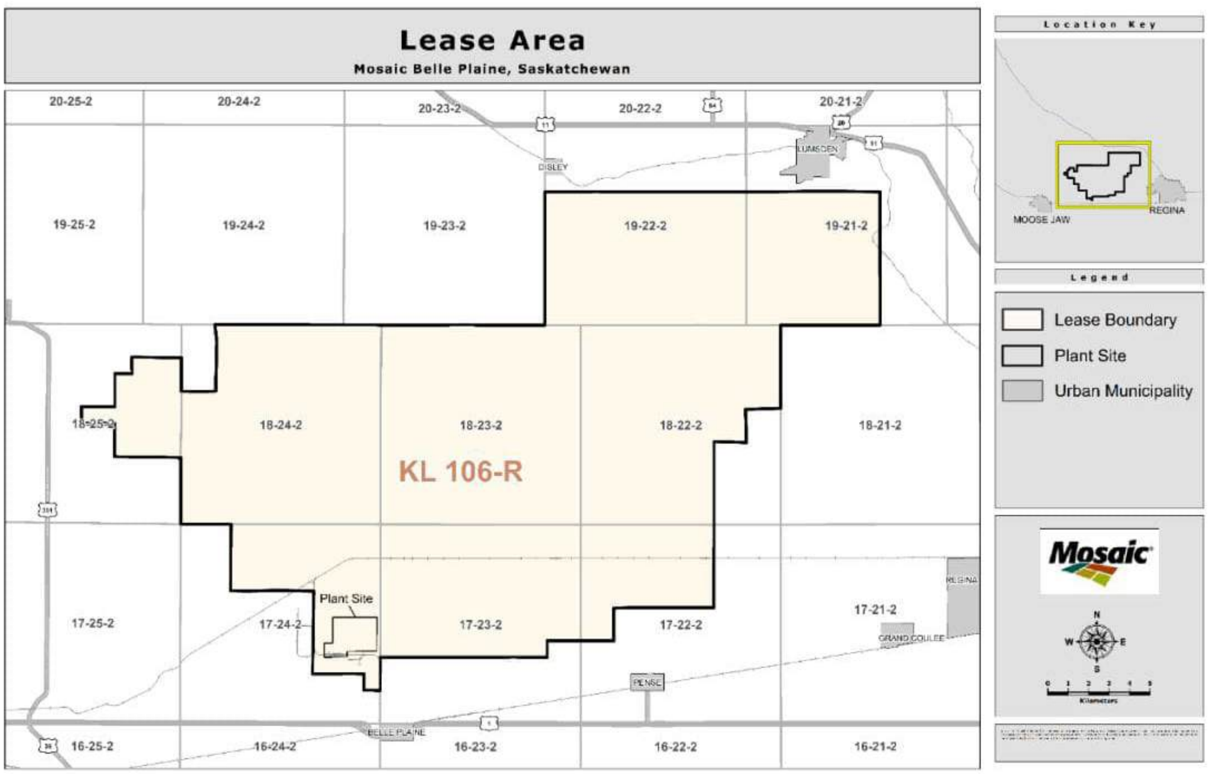


Figure 3-2: KL 106-R Lease Boundary

Tabic 3-1: Mineral Lease

Crown Lease Number	Type	Area (Ha)	Expiration Date
KL 106-R	Subsurface Mineral Lease	21,502	July 1.2033

Table 3-2: Sections and Acreages Owned by the Crown

Township/ Range	Sections of Mineral Rights Owned by Crown*	Area of Mineral Rights Owned by Crown (acres)
18/21	2/100	12
19/21	4-13/16	3,087
17/22	4-14/16	3,118
18/22	9-10/16	6.166
19/22	9-6/16	5,991
17/23	9-11/16	6,201
18/23	14-13/16	9.475
17/24	7-1/16	4.500
18/24	18-7/16	11.813
18/25	4-5/16	2,768
Total	**83-2/100**	**53,131**

*Full sections range from 640 acres to 644 acres; total acreage shown above is based on 640 acres per section where actual survey acreage is not available.

Table 3-3: Sections and Acreages of Mosaic Owned Mineral Rights

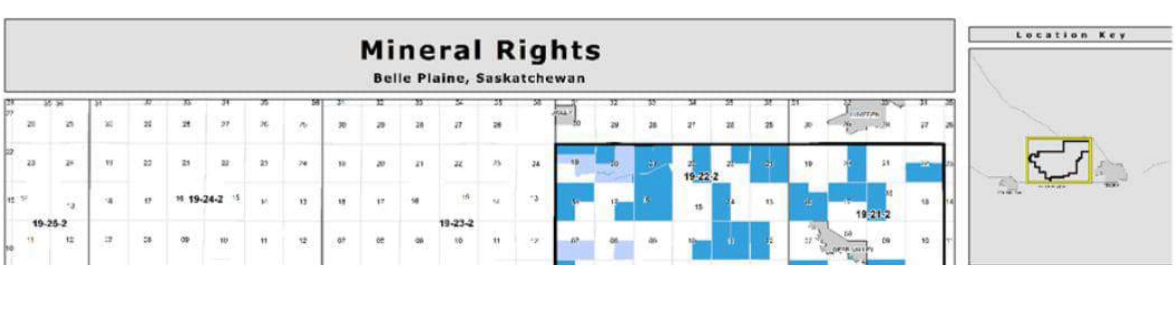
Township/ Range	Sections of Mineral Rights Owned by Mosaic*	Area of Mineral Rights Owned by Mosaic (acres)	Area of Full Quarter Sections Owned by Mosaic (acres)
17/23	10-14/16	6,962	5,910
18/23	6-11/16	4,275	3,817
17/24	7-7/16	4.762	3,526
18/24	5-2/16	3.286	2.871
Total	**30-2/16**	**19.284**	**16,124**

*Full sections range from 640 acres to 644 acres; total acreage shown above is based on 640 acres per section where actual survey acreage is not available.

Table 3-4: Partial Mineral Rights Area

Township/ Range	Sections of Crown Mineral Rights Leased by Mosaic. Currently Not Mineable*	Crown Mineral Rights Leased by Mosaic, Currently Not Mineable (acres)
18/22	1-2/100	652
19/22	1-7/100	682
18/23	38/100	241
18/24	48/100	307
Total	**2-94/100**	**1,882**

*Full sections range from 640 acres to 644 acres; total acreage shown above is based on 640 acres per section where actual survey acreage is not available.



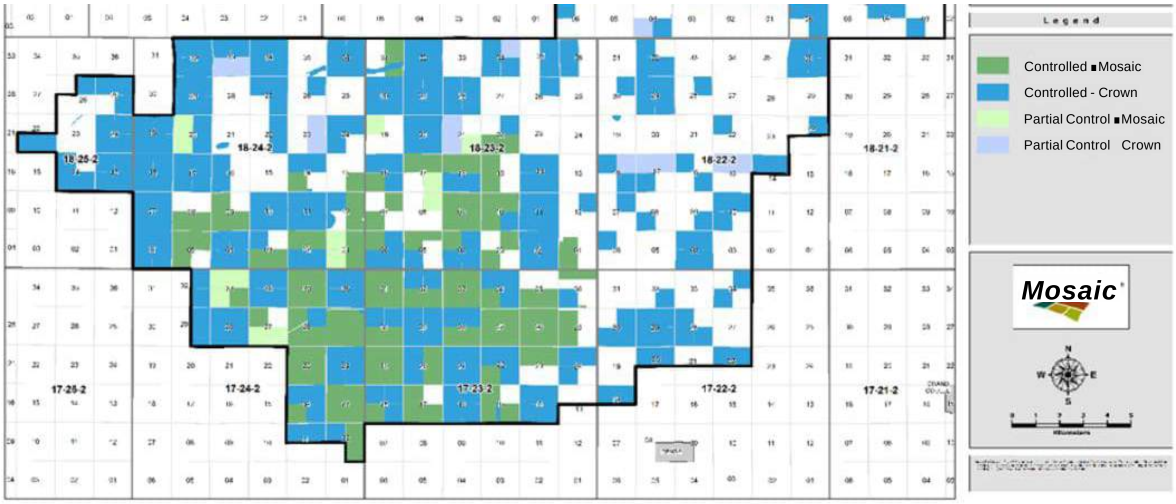


Figure 3-3: 2024 Mineral Rights Location and Status

3.2.2 Surface Rights

Surface rights are subject to separate ownership and title from subsurface mineral rights. At Belle Plaine, Mosaic owns 6,332.88 acres of surface rights. All infrastructure including the processing plant, TMA (tailings management area), cluster sites, and pipeline rights of way are located on Mosaic-owned land. Mosaic-owned land not used for infrastructure is leased out for agricultural use.

3.2.3 Water Rights

Water Rights License issued by the Saskatchewan Water Security Agency is in place for the Belle Plaine Potash Facility and is subject to review on April I, 2031. This license covers the water rights from Buffalo Pound Lake and makes references to the Approval to Operate Works associated with the pipeline and associated infrastructure connecting the Site to the SaskWater intake on Buffalo Pound Lake.

3.2.4 Royalties

Mosaic pays the Potash Crown Royalty under The Subsurface Mineral Royalty Regulations, 2017 (Saskatchewan) on all potash produced from Belle Plaine Crown mineral lands. Royalties are based on a royalty rate of 3% on the value of potash produced from Crown mineral lands. Value is determined based on the average price realized by the producer in the year, as determined by revenues and sales under *The Potash Production Tax Regulations*, 1990 (Saskatchewan).

Non-crown royalties are also paid based on each individual freeholder ownership at a rate of 3% of the value of potash produced. Value is determined as the average price realized by the producer in the year, as determined by revenues and sales under *The Potash Production Tax Regulations*, 1990 (Saskatchewan).

3.3 Encumbrances

There are no significant environmental permitting encumbrances (existing or anticipated in the future) associated with the Belle Plaine Potash Facility. Except for royalties. Mosaic does not anticipate any future encumbrances based on current known regulations and existing permitting processes. There are no outstanding violations and fines.

3.4 Significant Factors and Risks That May Affect Access, Title or Work Programs

Surface rights and mineral rights acquisition are important for the continued operation of the Belle Plaine Potash Facility.

Since all surface rights are privately owned. Mosaic is required to negotiate land purchases for continued expansion of the cluster site operations. In the event that Mosaic is unable to procure key plots of land, pipeline and cluster site layouts may be affected and an alternative plan may have to be considered.

Similarly, any freehold mineral rights Mosaic wishes to mine must be purchased or leased through negotiated agreements with freehold mineral owners. Due to the large area of the Crown lease and broad lateral extents of the potash deposit, alternate locations for mining caverns and related infrastructure arc generally available.

The 2024 LOM plan includes mining only mineral rights that are controlled (Mosaic owned, or Crown leased). Mosaic will continue to acquire uncontrolled mineral rights and incorporate them into the LOM plan. Any acquisition of uncontrolled mineral rights has the potential to increase the mine life at Belle Plaine.

4.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

4.1 Physiography

4.1.1 Topography, Elevation and Vegetation

Overall, the Belle Plaine area consists of flat, cleared farmland with a knob-and kettle topography and occasional rows of trees planted to serve as windbreaks. The area was settled by fanners beginning in the late 1880s after the arrival of the Canadian Pacific Railway (CP) and is primarily crop land used to grow wheat, canola, canary seed and flax, although there are scattered pastures and grazing lands. The ground surface at the Processing Plant is at an elevation of 1,900 ft. (589 nt) above Mean Sea Level (MSL).

4.2 Accessibility

The Belle Plaine Potash Facility is accessible by a network of “grid" section gravel and paved roads, including four major paved highways and three secondary highways. Figure 4-1 shows the Belle Plaine area railways and major roadways. The main road access to the site is via Kalium Road that provides access from the main corridor between Moose Jaw and Regina, TransCanada Highway #1. Alternate access to lhe Mining Area via the East/West Highway SK 730 or North/South Highway 642,

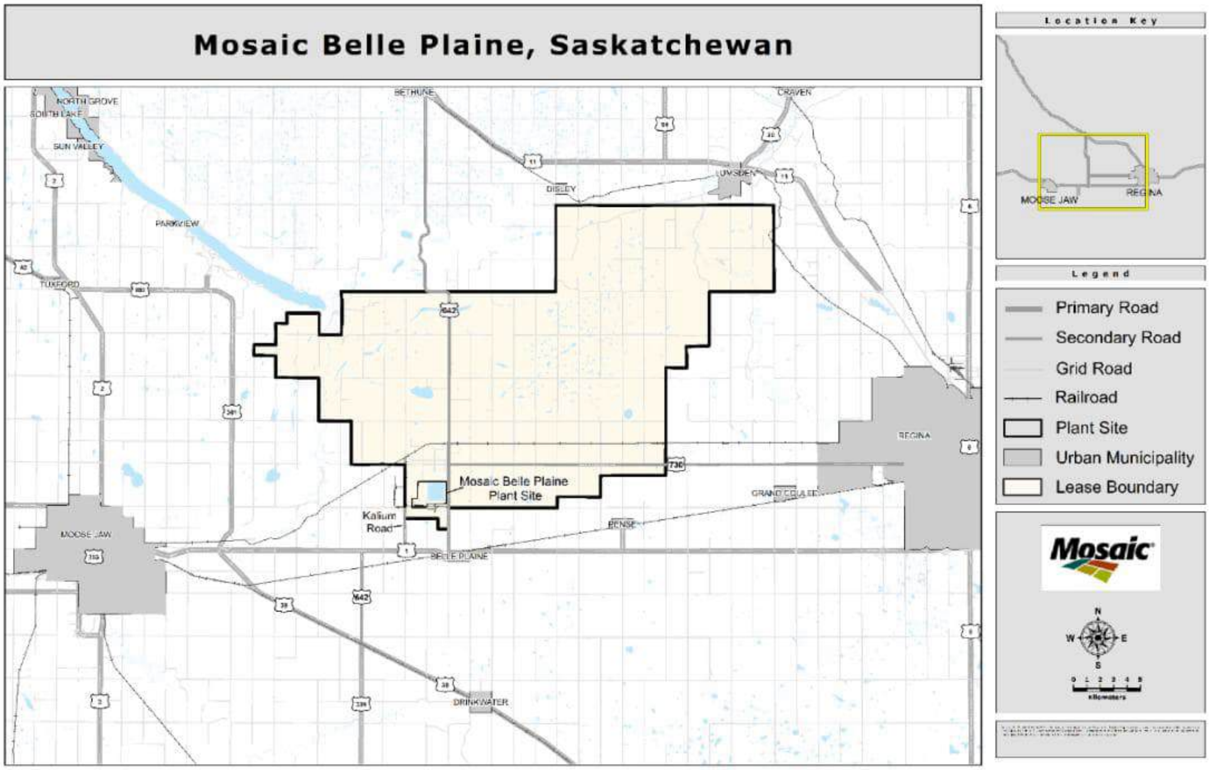


Figure 4-1: Location and Accessibility

4.3 Climate

4.3.1 Climate

The climate is typical of the Canadian prairies and consists of a winter period (November March) of snow with a mean temperature of -11 °C and a warm 15° to 35°C summer period (June to early September) with moderate precipitation. The spring (April-May) and autumn (late September to October) are cool with precipitation in the form of rain and occasional snow. Exploration activities and construction of the processing plant and other surface facilities are limited by weather conditions during the spring and fall periods when soft ground conditions due to thawing and/or precipitation create difficulties in moving heavy machinery. During the winter and summer months, access is largely restricted only by local conditions, periodic rains or snowfalls, or environmentally sensitive ground conditions.

4.3.2 Length of Operating Season

The length of the operating season for the Belle Plaine Potash Facility is the full year. Belle Plaine operates for an average 365 days per year.

4.4 Infrastructure/Local Resources

4.4.1 Water

The main source of water (non-potable) required for production is provided by SaskWater from the Buffalo Pound Lake, that is 18 miles (29 km) long and 0.6 miles (1 km) wide with an average depth of 10 ft. (3 m), located northwest of the mine. The water source also supplies potable water for the cities of Regina, Moose Jaw and surrounding regions. Water levels are controlled by the Saskatchewan Water Security Agency and managed through the Lake Diefenbaker

Dam.

4.4.2 Power and Electricity

SaskPower provides a portion of the power required to run the Belle Plaine Potash Facility. This power comes in off the main SaskPower grid that could be fed from any number of SaskPower plants, along the highline running north and south along Kalium Road. A total of 138 kV comes into the Belle Plaine substation where it is then stepped down to 13.8 kV using two transformers (28 MVA and 33.3 MVA). Belle Plaine owns and manages a substation where there is also a 138 kV grounding transformer and a 138 kV gas insulated switchgear lineup. The Belle Plaine Potash Facility generates power from the Powerhouse from two steam turbine generators.

4.4.3 Natural Gas

TransGas supplies natural gas to the Belle Plaine Potash Facility. In support of this, Belle Plaine has a regulator station for the natural gas, situated just north of the Administration Building and Powerhouse.

4.4.4 Roads and Logistics

There are a variety of site roads maintained and Rural Municipality of Pense (No. 160) maintained roads on the Belle Plaine property. These are typically gravel roads. Roads around the processing plant are paved and maintained regularly.

Canadian National and Canadian Pacific Railways are available to Belle Plaine to move final product to port. The majority of finished product leaves site by rail. Belle Plaine is party to a Tri-Party Joint Operating Agreement with

Canadian Pacific (CP) and Canadian National Railways (CN), dated July 20, 1967 that governs the joint operation and interaction of all parties for freight services at the Belle Plaine Potash Facility. Mosaic owns a portion of the tracks on site. The remainder of the tracks are owned by CN and CP. but Mosaic has running rights and lease agreements to operate on the tracks. Product is then moved via the CP Rail to port or south into the USA. Since Belle Plaine is located between the CN and CP rail lines, the loadout tracks are tied into the CN Lead and CP Spur.

4.4.5 Personnel

The Belle Plaine Potash Facility is located between the cities of Moose Jaw and Regina. Moose Jaw has a population of approx. 34,000 people and is located 17 miles (28 km) west of the Belle Plaine Potash Facility. It is Saskatchewan's fourth largest city and home to one of the four Saskatchewan Polytechnic campuses. Regina, located 27 miles (44 km) cast of Belle Plaine has a population of approx. 214,000 people. It is Saskatchewan's second largest city and home to the University of Regina as well as a Saskatchewan Polytechnic campus.

The Belle Plaine workforce lives nearly evenly split between Regina and Moose Jaw. Belle Plaine personnel are typically trained through a variety of trades programs offered at the Saskatchewan Polytechnic campuses, the University of Regina or the University of Saskatchewan.

4.4.6 Supplies

The province of Saskatchewan offers a large variety of suppliers for the potash mine operators. The potash industry in Saskatchewan is very mature. This makes it easier to attract vendors to support the needs of the various mine sites throughout the province. Trade associations, notably the Saskatchewan Mining Association, the Saskatchewan Ministry of Trade and Export Development and the Saskatchewan Industrial and Mining Suppliers Association, put on an annual Supply Chain Forum for vendors and potash producers.

Saskatoon and Regina both have large industrial sectors with a variety of machine shops and industrial support services. Some specialty services are provided from Alberta or Manitoba. Mosaic's procurement team targets longer term contracts with vendors to ensure an uninterrupted supply of required resources for the site is maintained.

5.0 History

The Belle Plaine Potash Facility started production in 1964 after a period of significant research into solution mining, potash recovery and processing plant construction. Table 5-1 summarizes the important historical dates and events for Belle Plaine.

Table 5-1: History

Date	Event/Activity
1928	Discovery of evaporites in the sedimentary sequence in Saskatchewan.
1956to 1966	Pittsburgh Plate Glass completed significant research and development over a decade and published several research papers concerning solution mining and potash recovery.
1960	A pilot solution mining project located at the current site was constructed, convincing Pittsburgh Plate Glass to develop the first commercial potash solution mining operation in the world based on the pilot plant results. The first exploration well drilled at the Belle Plaine property was Standard Chemical Stony Beach #1 in August 1960. Fourteen additional exploration wells were drilled from August 1960 to June 1968.
1963	Kalium Chemicals, Ltd, a joint subsidiary' of Pittsburgh Plate Glass and Armour and Co. started construction of the original processing plant for a capacity of 0.600M tons (0.544M tonnes) annually. The main plant construction consisted of the North and South evaporators (all 8), Crystallizers #1 to #4, #1 and #2 Compactor systems, #1 to #5 Beehive warehouses, Loadout building and the office and maintenance buildings.
1964	Mine and processing plant construction completed, and production commences. The first rail car of potash was produced and shipped in August.
1968	Capacity expansion to 1,0M tons (0.9M tonnes) per year. Main assets added included three more crystallizers (#5. #6 and #7). a third cooling tower, a sixth beehive warehouse and a bam style warehouse #7, a fluid bed dryer and filter table and a third boiler.
1980 to 1984	Two capacity expansions, first to 1,2M tons (1.IM tonnes) and the second to 1.6M tons (1,5M tonnes) per year. The major assets added included bucket elevators for each product, the fine fluid bed dryer, *#4* Compactor, reheat system barometric, additional galleries and conveyors to the warehouse (1A), cooling ponds, scrubbers and the Cold Leach Area.
1989	Sullivan & Proops (Vigoro) purchased Belle Plaine from Pittsburgh Plate Glass (PPG).
1990s	Capacity expansion to 2.2M tons (2.0M tonnes) per year. Assets added included the K-Life System, 44 Turbo Generator, dual conveyors, conversion of the compaction system and additional compactors installed.
1995	IMC bought Belle Plaine,
1998	The first 2D seismic survey at the Belle Plaine mine site was completed. A total of 160 line km was completed covering an area of approximately 14 sq. km.
2000	The first 3D seismic survey at the Belle Plaine Potash Facility was completed, providing critical geological information about the geology of the potash members. This has become a critical tool used to provide confidence in the interpretation of the potash mineralization.
2001	The 2001 Belle Plaine 3D seismic survey was completed. The survey covered approximately 13 sq. km and was adjacent to and merged with the 2000 survey. This survey program utilized 56 km of source lines and 72 km of receiver lines.
2004	The Mosaic Company was formed from a merger between IMC Global and Cargill's Crop Nutrition business.
2005	The 2005 Belle Plaine 3D seismic survey was completed. The survey covered approximately 11 sq. km and was adjacent to and merged with previous 3D surveys. This survey program utilized 47 km of source lines and 55 km of receiver lines.
2008	The 2008 3D seismic survey covered approximately 72 sq. km and was adjacent to and merged with previous 3D surveys. This survey program utilized 385 km of source lines and 378 km of receiver lines.

2008 to 2012	Capacity expansion to 3.2M tons (2.9M tonnes) per year. Assets added the Injection wells 3 and 4, Reclaim Brine system, #4 Boiler, Process Water Building, Cold Leach Motor Control Center room, #5 Compaction system, #8 Warehouse building, #2 Reclaim, reclaim losses system. Pond return slurry tank and centrifuge upgrades, Rotary dryer #3, #2 Loadout system. 60 km of new mine field pipelines, a drilling rig, new substation and replacement of the #4 crystallizer.
2010	The Pense 3D seismic survey was completed that covered approximately 40 sq. km and was adjacent to and merged with the previous 3D surveys. This survey program consisted of 219 km of source lines and 208 km of receiver lines.
2014	Plant upgrades included the adding and commissioning of Compaction #6.
2016/2017	The site's ability to produce at a sustained 3.3M tons (3.0M tonnes) per year in future years was validated through a "proving run" completed in 2016 when the Belle Plaine Potash Facility achieved a proven nameplate capacity of 4.3M tons/year (3.9M tonnes/year).
2019	Plant upgrades were completed, consisting of adding the East thickener and advanced dewatering techniques.
2020	Two production wells were cored in 2020 to support the grade interpretation and calibration of the gamma geophysical logging system. The recent calibration check has been evaluated by a third- party consultant to ensure applicability of the method regarding sample quality grade estimation.

The Belle Plaine Potash Facility started production in 1964. Table 5-2 outlines the KC1 production history from 2003 to the end of 2024. The 2024 production includes actual data for the months January to September inclusive and a forecast for October and December,

Tabic 5-2: Production History

Year	Total Mineral Reserves Mined			Total Product	
	Tons M	Tonnes M	% KjO	Tons M	Tonnes M
I964to 1984	79.8	72.4	18.0%	20.4	18.5
1985 to 2010	226.1	205.1	18.0%	55.4	50.3
2011	**11.6**	10.5	18.0%	2.6	**2.4**
2012	12.5	11.3	18.0%	2.3	2.1
2013	10.5	9.5	18.0%	2.4	2.2
2014	11.5	10.4	18.0%	2.4	2.2
2015	**13.0**	11.8	18.0%	2.3	2.1
2016	13.5	12.2	18.0%	2.6	2.4
2017	12.0	**10.9**	18.0%	2.9	2.7
2018	12.3	11.2	18.0%	3.1	2.8
2019	12.5	11.4	18.0%	3.0	2.7
2020	11.7	10.7	18.0%	3.1	2.8
2021	12.1	11.0	19.3%	3.1	2.8
2022	12.1	11.1	19.3%	3.1	2.8
2023	11.2	10.2	19.3%	3.0	2.8
2024	12.8	11.6	19.3%	3.4	3.1
Total	**475.2**	**431.3**	**18.0%**	**115.1**	**104.7**

6.0 Geological Setting, Mineralization and Deposit

6.1 Deposit Type

Potash at the Belle Plaine Potash Facility area occurs conformably within Middle Devonian-age sedimentary' rocks and is found in total thicknesses ranging from approximately 100 to 131 ft. (30 to 40 m) at a depth of approximately 5,345 to 5,740 ft. (1,630 to 1,750 m). Evaporites are generally formed by seawater flowing into landlocked basins, followed by the evaporation of the seawater and precipitation of the dissolved salts. Progressive solar distillation of these salt-rich brines results in sequentially precipitated beds of limestone (CaCOs), dolomite (CaCOj-MgCOj), anhydrite (CaSCL). halite (NaCI), carnallite (KCFMgClrtFBO), sylvite (KC1), kieserite (MgSO HiO), and other calcium and magnesium salts.

The term potash is the common name for various compounds that contain the clement potassium. Potash is expressed and reported in FCU equivalents. Since commercial potash minerals include chlorides and sultatcs containing varying quantities of potassium, potassium-bearing minerals are compared on the basis of their K?O contents. The term muriate of potash (MOP) is used for commercial grade fertilizer containing potassium chloride (KC1). The product mined and sold is KC1. A tonne of KC1 contains an equivalent of 0.6963 tons (0.6317 tonnes) of K2O. Sylvinite is a rock comprising a mixture of sylvite and halite that is the source of potash. The Prairie Evaporites may also contain carnallite and insoluble materials such as clay, anhydrite, and dolomite crystals.

The widespread consistency of the potash-bearing Prairie Evaporite Formation sub-members and the flat lying bedded nature of the sylvinite intervals result in highly mechanized conventional underground mining operations. Where underground operations arc not economically viable due to depth of deposition, solution mining has been safely and productively developed with an efficient process for recovering otherwise inaccessible minerals.

Potash mineralogy in Saskatchewan locally includes high concentrations of carnallite. Carnallite is considered an impurity because it can negatively impact the effective recovery of potash in the milling process. Carnallite dissolves preferentially to sylvinite which can reduce the concentration of sylvite in suspension in solution mining efforts. There is currently no remote sensing application that effectively identifies the presence of carnallite in the Prairie Evaporite (Fuzesy, 1982) and others have shown areas of high carnallite grade on regional maps based on interpretations of downhole gamma and neutron geophysical logs and assay records maintained for historical drill holes by Saskatchewan Ministry of Energy and Resources.

6.2 Regional Geology

The intracratonic Elk Point Basin is a major sedimentary geological feature in western Canada and the northwest USA (Figure 6-1). It contains one of the world's largest stratabound potash resources. The nature of this type of deposition is largely continuous with predictable depths and thickness. It is estimated to host >5 billion tonnes of ore (Orris, 2014) and is mined at a number of locations, including the Mosaic's Belle Plaine, Esterhazy and Colonsay potash facilities. Saskatchewan potash represents almost 25% of the global potash production due to its relatively low-cost, bulk tonnage mining methods. (Orris, 2014).

Figure 6-1: Regional Geology Plan of the Elk Point Basin (RESPEC, 2021)

The regional subsurface stratigraphic column of central Saskatchewan is presented in Figure 6-2. The geological column may be subdivided into three broad intervals.

1. An uppermost sequence extending from surface to an approximate depth of 575 to 650 ft. (175 to 200 m) and consisting of Quaternary glacial tills, gravels, and clays and containing freshwater aquifers.
2. A medial sequence extending from the base of the glacial sediments to an approximate depth of 3,215 ft. (980 m) and consisting of Triassic to Cretaceous shales, siltstones, and sandstones with limited aquifers of brackish water.
3. A lowermost sequence extending from the Triassic/Mississippian Unconformity to below 6,900 fl. (2,100 m) depth and consisting of Cambrian to Mississippian carbonates, evaporites, and basal shales and sandstones.

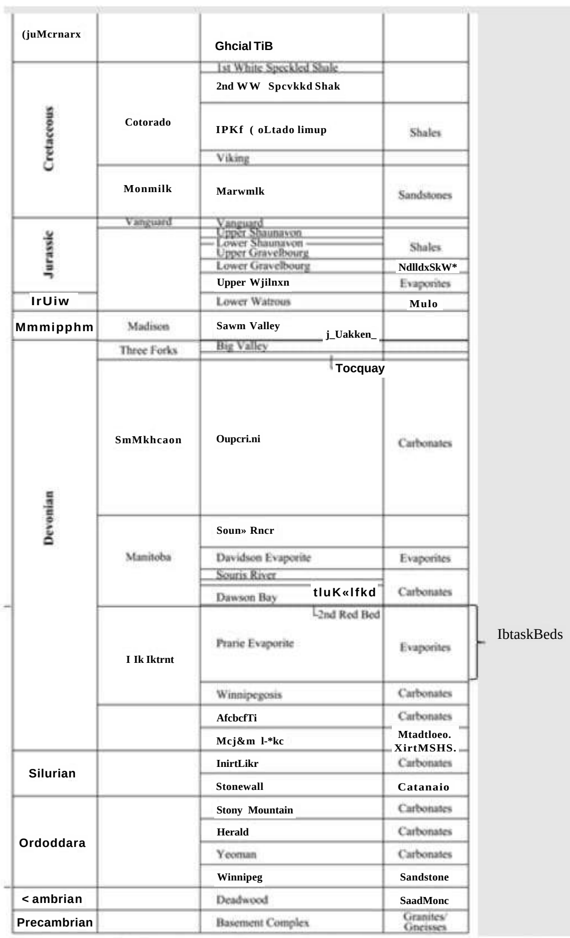


Figure 6-2: Regional Central Saskatchewan Stratigraphy

The Deadwood Formation sandstone that lies immediately above the Precambrian basement is used for disposal of salt brines from preproduction cavern sump development and excess brines from the processing plant. The above strata are underlain by gneisses and granites of the Precambrian basement.

Laterally extensive, evaporite beds containing deposits of halite, sylvite, and carnallite are found within the Middle Devonian Elk Point Group, whose top ranges from a depth of 8,200 ft. (2,500 tn) in southern Saskatchewan to surface outcrop in northwestern Manitoba. The Elk Point Group lies unconformably on the Silurian-age Interlake Formation and is overlain unconformably by carbonate deposits of the Middle Devonian-age Dawson Bay Formation. The evaporite beds are contained within the Prairie Evaporite Formation, overly the Winnipegosis Formation within the Elk Point Group. The basal contact between the Prairie Evaporite and the Winnipegosis Formation is marked by a sharp transition from halite of the Prairie Evaporite Formation to mixed limestone, dolomite, and anhydrite of the Winnipegosis Formation. The uppermost contact between the Prairie Evaporite and the Dawson Bay formations consists of shale and poorly consolidated silty detrital deposits named the “Second Red Beds." Regionally, the underlying Winnipegosis forms a broad flat basin to platform deposit with local development of limestone/dolomite “reefs,”

The Elk Point Group was deposited within a broad mid-continental basin extending from North Dakota and northeastern Montana at its southern extent in a northwest direction through southwestern Manitoba, southern and central Saskatchewan, to eastern and northern Alberta. The evaporite strata in the basin are restricted to the southern third of the Elk Point Basin in south-central Saskatchewan, southwestern Manitoba, northeastern Montana, and northwestern North Dakota (Holter 1969).

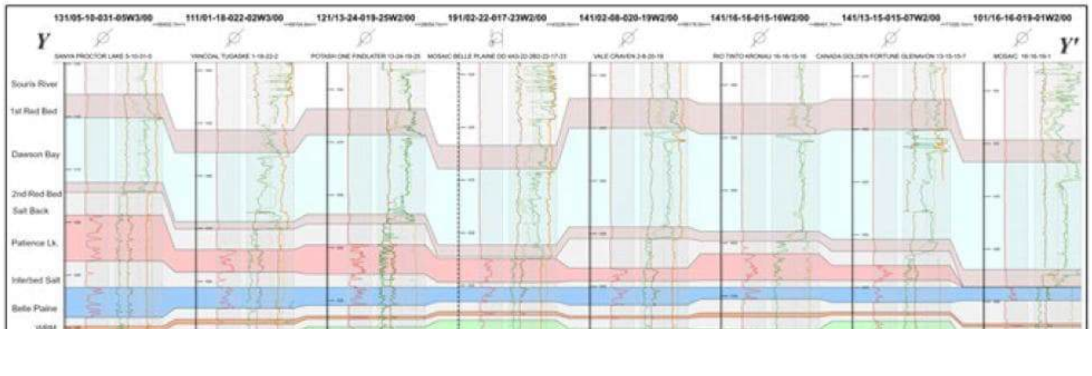
The Manitoba Group that overlies the Elk Point Basin consists of the Dawson Bay Formation and overlying Souris River Formation. Present within this sequence are two halite beds:

1. The Hubbard Salt, is the uppermost bed of the Dawson Bay Formation.
2. The Davidson Evaporite, overlies the First Red Beds within the Souris River Formation.

These halite beds are important from an underground mining viewpoint as they form a flood protection zone that separates the Prairie Evaporite Formation mining horizon from the overlying water and brine aquifers present within the Cretaceous sands, especially the Mannville Group (formerly known as the Blairmore Formation).

The Prairie Evaporite Formation is divided into a basal “Lower Salt” and an overlying unnamed unit containing three potash-bearing units and one unit containing thin “marker beds.” In ascending order, the potash horizons in the upper unit are the Esterhazy Member, White Bear Marker Beds, Belle Plaine Member, and Patience Lake Member. Mineralogically, these Members consist of sylvite and halite with minor amounts of carnallite (K.CI MgCL tHjO). Small amounts of carnallitic orcs can be handled by the evaporator/crystallizer processing circuits used at solution mines, however, to purge the magnesium, some KC1 is lost as well. Carnallitic brines can be blended with non-camallitic brines from other wells to make the resulting carnallite grade acceptable. The White Bear Marker Beds are typically of insufficient thickness and grade to be economically mineable.

Figure 6-3 shows a regional cross section showing the potash bearing members across Saskatchewan. The Belle Plaine Potash Facility mines the Patience Lake, Belle Plane and Esterhazy Members, and the Esterhazy Potash Facility mines the White Bear and Esterhazy Members.



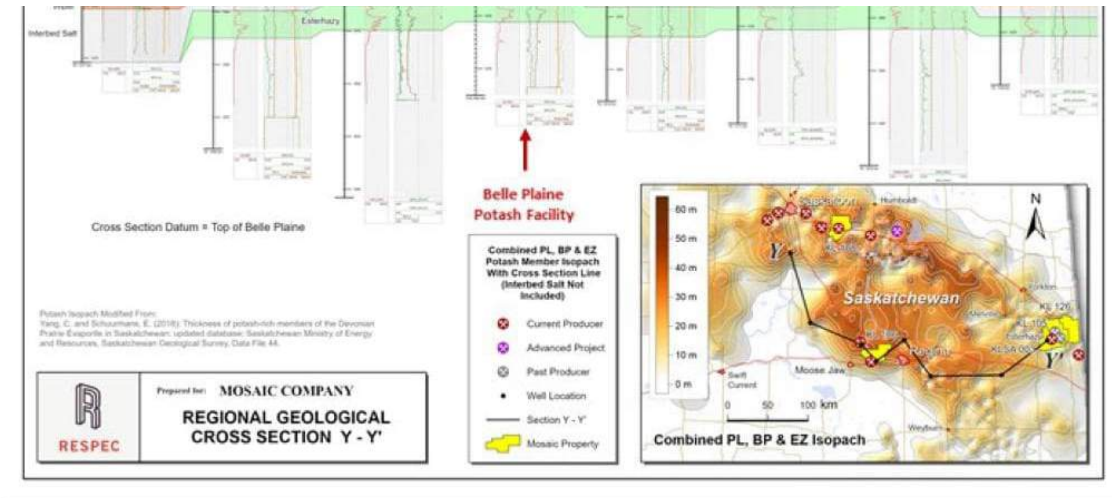


Figure 6-3: Regional Cross Section Illustrating the Stratigraphic Relationships of the Prairie Evaporite Formation (RESPEC, 2021)

6.3 Local Geology

6.3.1 Stratigraphy

In the Belle Plaine area, the Esterhazy, Belle Plaine, and Patience Lake Members are present (Figure 6-4). Also, present are the White Bear Formation marker beds that occur between the Belle Plaine and Esterhazy Members but are of insufficient thickness to be minable.

The following is a summary of the key stratigraphic units for the Belle Plaine Potash Facility area:

- Patience Lake Member: The uppermost member of the Prairie Evaporite Formation with potash production potential. Between the top of the Prairie Evaporite and the top of the Patience Lake Member is a 0 to 45 ft. (0 to 14 m) thick unit of halite with clay bands called the Salt Back. The sylvite-rich horizons within the Patience Lake Member are mined using conventional underground mining techniques along a trend from Vanscoy to Lanigan in the Saskatoon area and by solution mining techniques at Belle Plaine.
- Belle Plaine Member: The Belle Plaine Member underlies the Patience Lake Member and is separated from it by a zone of low grade sylvinite. The Belle Plaine Member is mined using solution mining techniques at the Belle Plaine Potash Facility.
- White Bear Formation: The White Bear Formation consists of marker beds that are a distinctive unit of thin interbedded clay, halite, and sylvinite horizons that arc not minable due to insufficient thickness 4 to 5 ft. (1.2 to 1.5 m).
- Esterhazy Member: The Esterhazy Member is separated from the Belle Plaine Member by the White Bear Formation marker beds, a sequence of clay seams, low-grade sylvinite, and halite. The Esterhazy Member is mined using conventional underground techniques at the Esterhazy Potash Facility in southeastern Saskatchewan, and by solution mining techniques at the Belle Plaine Potash Facility.

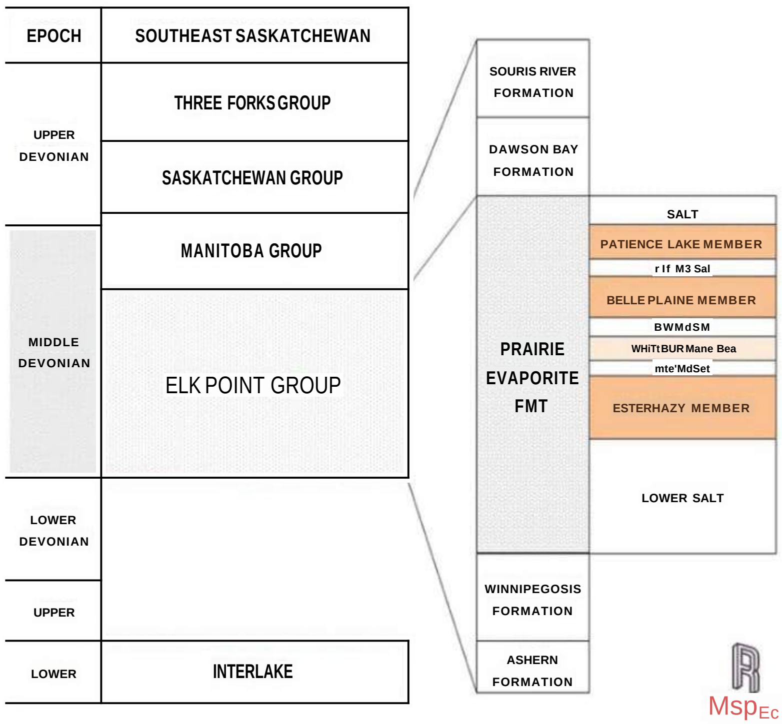
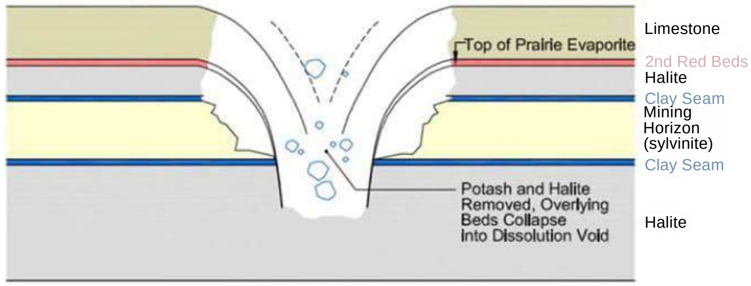


Figure 6-4: Local Stratigraphy (RESPEC, 2021)

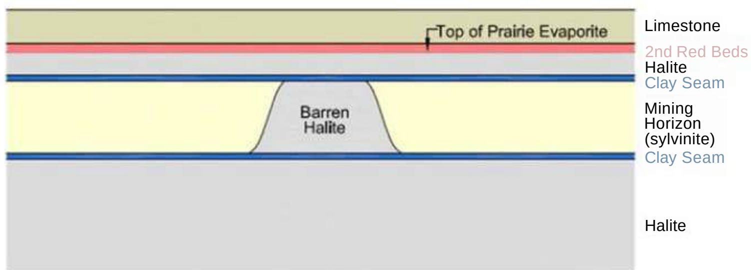
The typical sylvinitc intervals within the Prairie Evaporite Formation consists of a mass of interlocked sylvite crystals that range from pink to translucent and may be rimmed by greenish-grey clay or bright red iron insolubles, with minor halite randomly disseminated throughout the mineralized zones. Local large 1 inch (2.5 cm) cubic translucent to cloudy halite crystals may be present within the sylvite groundmass, and overall, the sylvinitc ranges from a dusky brownish red color (lower grade, 23% to 27% FLO with an increase in the amount of insolubles) to a bright, almost translucent pinkish orange color (high grade, 30%+ K:O). Carnallite is also present locally in the Prairie Evaporite Formation as a mineral fraction of the depositional sequence. The intervening barren salt beds typically consist of brownish red, vitreous to translucent halite with minor sylvite, carnallite and increased insoluble materials content.

6.3.2 Stratigraphic Anomalies

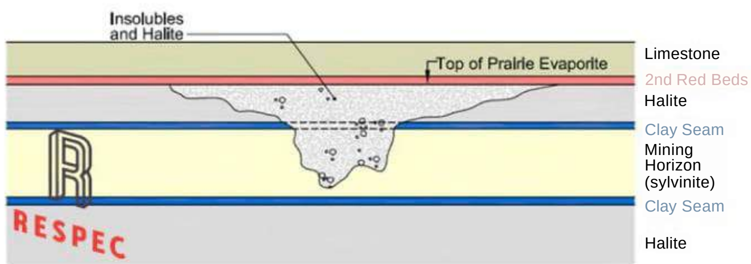
Potash-bearing horizons may be affected by three general types of anomalies. In general, any disturbance that affects the normal mineability of the sylvinite-bearing horizons is considered an “anomaly.” Figure 6-5 illustrates the typical disturbances that create anomalous altered zones within the main sylvinite-bearing horizons at Saskatchewan potash mining properties. These anomalies range from localized features less than a square kilometer in extent to disturbances that are regional (i.e., several square kilometers in extent) and can result in local disruptions to the grade of the ore body (either leaching or in some cases, enrichment).



a) Salt Dissolution and Collapse Anomaly



b) Leach ("Salt Horst") Anomaly



c) "Washout" Anomaly

Figure 6-5 Types of Stratigraphic Anomalies (RESPEC, 2021)

Dissolution and collapse anomalies, or simply "collapse" anomalies, are those formed by the absence of a portion or the entire mass of evaporite salts. In the case of these anomalies, the overlying beds typically slump down into the void thus formed, creating a rubble pile or "breccia chimney" where normally the evaporite beds would be expected. In contrast to the leach or washout anomaly, the collapse anomaly can be identified by means of seismic reflection surveys and can thus be avoided through mine design by defining exclusion zones. Collapse anomalies arc considered high risk to conventional underground potash mining operations as they typically breach all overlying aquitards and aquicludes, thus forming conduits for overlying brines and freshwaters to flow downward into potential mine workings.

Although the risk to life and mine makes identification of collapse anomalies critical for a conventional underground operation, there is limited risk to solution mining where access to the orebody is remote through boreholes only. Individual collapse occurrences are reviewed and categorized based on their potential impact to the potash deposit.

A "washout anomaly" is an anomaly wherein the typical sylvinite horizon has been replaced or altered to a halite mass that consists of medium to large !4 inch (1 cm) halite crystals within a groundmass of smaller intermixed halite and clay insolubles. Clay intrusions up to 'A inch (1 cm) long may be present and, typically, there is a concentration of clay at the top and base of the altered zone. Mackintosh and McVittie (1983) describe these disturbances as "salt-filled V- or U-shaped structures (Figure 6-6), that transect the normal bedded sequence and obliterate the stratigraphy." Washouts may extend laterally for considerable distances but generally appear over short intervals. These features are easily identified in conventional mining operations through visual inspection but are not detectable using seismic. Their occurrence would not be known in a solution cavity due to the style of mining, intersection with this type of feature would have imperceptible impact on overall cavity performance.

Figure 6-6: Wash-out Anomaly

A "leach anomaly" is an anomaly wherein the typical sylvinite bed has been altered in such a manner that the sylvite mineral has been removed and replaced by halite (Figure 6-7). Such anomalies are also colloquially termed "salt horses" or "salt horsts" by mine operators. If the altered zone crosses any stratigraphic boundaries, these boundaries are commonly unaltered. This type of disturbance is generally considered post depositional (i.e., formed after deposition of the primary sylvinite). These anomalies are commonly associated with underlying Winnipegosis reefs, that may have some formative influence upon the anomaly. There are many examples at the Esterhazy Potash Facility where a leach anomaly is encountered and there is partial or complete remineralization of the insitu sylvite. These anomalies are local in extent ranging in diameter from a few meters to as much as 400m.

Figure 6-7: Leach Anomaly

The above-described anomalies can impact mining operations by potentially reducing the insitu grade of the potash ore. Identification of any disruption to normal continuous deposition requires evaluation prior to developing a mine plan. Surface seismic reflection surveys (2D and 3D) can be used to identify and, in the case of 3D seismic, delineate large scale collapse zones. Careful examination of core or logged data from surface drill holes can identify anomalous grade conditions if they are intersected but provide no information on their shape or extent.

6.4 Property Geology

The Belle Plaine property is underlain by the Esterhazy, Belle Plaine and Patience Lake Members described in Section 6.3.1. The mineable potash mineralization at Belle Plaine occurs in the three major potash bearing members, all of which are included in the solution mining. The key mining horizons are delineated using information gathered during production drilling using geophysical logging technology. These logs arc compared to physical core to evaluate the quality of the mineralization.

6.4.1 Belle Plaine Potash Deposit

The potash mined at Belle Plaine is a mixture of halite and sylvite and in some parts of the Mining Area, small amounts of carnallite. There are a number of clay-rich zones that are not recovered in the solution mining process that recovers a concentrate from a portion of the minerals rather than the entire bed.

There are distinct features that are correlated between core and geophysical logging and applied to indicate relative ore quality. The key characteristics that are interpreted using remote data include K.C1 grade, bedding identification, and carnallite presence. The potash deposit at Belle Plaine is uniform and laterally continuous. When properly calibrated, the gamma response can be converted to indicate the amount of potash in the geological unit as %KC1. The neutron-density log is used to indicate the presence of carnallite. These correlations arc possible based on understanding from examination of core.

The three mineable potash-bearing members underlying the Belle Plaine property are, in ascending stratigraphic order, the Esterhazy Member, the Belle Plaine Member and the Patience Lake Member. The White Bear Formation marker beds occur between the Belle Plaine and Esterhazy Members.

Deposit Dimensions

Table 6-1 outlines the average thickness and grades of the potash horizons intersected by drilling at Belle Plaine.

Table 6-1: Potash Horizons

Potash Member	Average Mineable Thickness (ft.)	Average Mineable Thickness (m)	Average Grade %KC1	Average Grade %KiO	Local Naming Convention
Patience Lake	67.6	20.6	28.4	18.0	30 Beds
Belle Plaine	19.2	5.9	32.8	20.7	20 Beds
Esterhazy	16.7	5.1	35.7	22.5	10 Beds

Lithologies

The Prairie Evaporite Formation includes all the beds between the Dawson Bay and Winnipegosis formations. The geological interpretation of the Prairie Evaporite for the Belle Plaine Potash Facility is completed by evaluating the geophysical logs. The three individual potash members can be easily identified by looking for typical marker features in the logging traces as seen in the sample in Figure 6-5. The density of drilling allows for good correlation of these beds providing a clear picture of the elevation, grade and thickness of the mining zones.

The Esterhazy Member is easily identifiable in geophysical logs by the sharp increase in gamma at the top and decrease at the base (Figure 6-8), consisting of bedded halite, sylvite, with local carnallite. The potential mining zone in the Esterhazy Member is generally thin, with low potash grade, and is separated from the bottom of the Belle Plaine Member by approximately 60 ft. (18.2 m) of halite and clays. There are interbedded clay seams and some interstitial clays within the different salt beds. The naming convention at site refers to the beds in the Esterhazy Member as beds 11,12 and 13 (in ascending depth). The highest grade potash is hosted in Bed 12 that has an average thickness of 20 ft. (6.1 m).

The Esterhazy Member is separated from the Belle Plaine Member by interbedded low grade sylvite, halite and clay seams called the Whitebear Formation. This interzonal salt is approximately 20 ft. (6.1 m) thick and is locally referred to as Bed 20. It is not a specific mining target at Belle Plaine because it is too thin to be economically mined.

The Belle Plaine Member includes three distinct beds separated by clay rich zones. These beds arc notable in the gamma logs and distinguished as the 20 beds (beds 21, 22 and 23). The potash in the Belle Plaine Member is comprised of hematite-rimmed halite and sylvite and interstitial (non-planar) clays.

A thin salt stringer interrupts the potash between the Belle Plaine and Patience Lake Members. This 10 ft. (3 m) barren salt is easily identified in the logs.

The Patience Lake Member is a ~60 ft. (18.2 m) thick unit of sylvite, halite and interstitial clays. It is the thickest and youngest and highest grade horizon in the sequence. There are a number of clay seams that are identified in the logs for differentiation between the beds in this potash horizon. The beds are considered the 30 Series and are identified as beds 31,32, 33, 34, 35 and 36.

Separating the Patience Lake mining zones from the Second Redbed is a unit referred to as the Salt Back. Its presence is important to the stability of a cavern in the late stages of production. The Salt Back includes low grade interbedded halite and sylvite and is usually 25 to 30 ft. (7.6 to 9.1 m) thick at Belle Plaine.

It is possible to encounter variation in the thickness and grade of these beds, but usually, normal stratigraphy is present. Solution mining methods can more easily accommodate any local variations in geological condition due to the non-sclcctivc concentrate mining process. Mosaic has extensive experience acquired from the conventionally mined sites that provides opportunity' to visualize the impact of dissolution on the ore at Belle Plaine.

When considering the sequence of mining at Belle Plaine, the following terminology is applied to the beds. This describes the geology in a way that best summarizes the grades that are available for solution mining.

- The Lipper Mining Zone consists of beds 38 to 31 of the Patience Lake Member and beds 23 to 21 of the Belle Plaine Member. The Upper Mining Zone is about 90 ft. (27.4 m) thick.
- The Salt Stringer is a thin bed of salt located between Beds 31 and 23 in the Upper Mining Zone. The Salt Stringer is approximately 10 ft. (3 m) thick.
- The Interzonal Salt is a thick bed of salt located between the Lower and Upper Mining Zones.

- The Marker Bed is a small, very rich potash bed located midway through the Interzonal Salt.
- The Lower Mining Zone consists of beds 13, 12 and 11 of the Esterhazy Member. The Lower Mining Zone is approximately 20 ft. (6.1 m) thick.

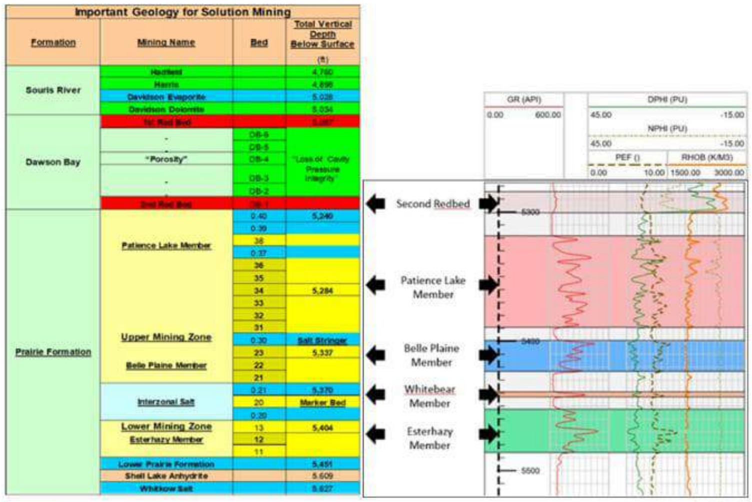


Figure 6-8: Deposit Stratigraphy with Corresponding Gamma Results

Structure

The Prairie Evaporite is a relatively flat-lying deposit with uniform bedding across the property. The 3D seismic interpretation is used to describe the structure within the mining zone. Evaluation of Winnipegosis mounds, collapse features and the total salt isopach supports mine planning activities at Belle Plaine.

The underlying Winnipegosis Formation locally affects the elevation topography of the mining horizon. These local inflections result from compaction on the rcef mound structures found in the Winnipegosis carbonates and can affect the potash zones. There is limited impact to mining based on the occurrence of these mounds, which are well defined by 3D seismic interpretation. Geological expertise at Mosaic potash mines in Saskatchewan has resulted in an evolved internal registry of mound encounters. Appropriate operational strategy and mine planning controls arc effective in limiting the impact of the local bed dip inflections and mineralogical variance associated with mound encounters in the conventional and solution environments.

Collapse features are locally identified and impact the mineralization partially or entirely. They are classified based on the impacts of the feature with respect to size, vertical extent and Prairie Evaporite loss. At Belle Plaine, collapse features are considered, but do not pose mining risk to the operation outside of the impacts associated with potash bed loss.

Mineralization

Potash mineralization contains sylvinite; a mixture of the iron oxide-stained halite, sylvite and locally, carnallite. When present interstitially or as massive pods, carnallite can deteriorate rapidly or be preferentially dissolved. The color of the potash can vary from light orange to deep red rimmed crystals. The mineralization can be locally bedded or massive. The halite and sylvite crystals can range from small to more typically coarse to large. This can be attributed to the conditions during deposition as there has been no alteration.

Carnallite is considered an impurity in solution mining and can result in dilution of the potash grade. The mineralogy of carnallite results in liberation of magnesium into the brine that is not removed through processing. Because the magnesium remains in suspension, there is reduced carrying capacity for KC1.

7.0 Exploration

The following section outlines and describes the exploration and geological information that has been collected and used to provide the basis for the mineral resource and mineral reserves estimates for Belle Plaine.

7.1 Exploration

7.1.1 Grids and Surveys

The UTM grid (NAD83 Zone 13N) is used for all exploration and production drilling as well as all seismic surveys.

7.1.2 Geological Mapping

Since there is no bedrock exposed on surface on the Belle Plaine property, no geological mapping has been completed. All subsurface bedrock geology is based on drilling.

7.1.3 Geochemistry

No significant surface geological geochemistry surveys have been completed at Belle Plaine.

7.1.4 Seismic Survey Geophysics

Over the past 30 years, the surface seismic method has gained widespread recognition in the potash industry, as a valuable mine planning tool and as an analytical tool for anomalous underground encounters at the mining level. Today, problems such as analysis of site-specific solution collapse anomalies, void space mapping, and brine inflow site identification are being solved through the use of surface seismic investigations.

2D seismic surveying has been done in the Belle Plaine Potash Facility as far back as the 1950’s, generally for oil and gas exploration. Initially four of these 2D lines in proximity to the proposed mine site were used for exploration purposes. As they were not specifically designed for delineation of the potash-bearing horizons, they could only be used for regional stratigraphy purposes. Over time, advancement of seismic technology has evolved from 2D to 3D methodology. This is now the primary exploration tool at Belle Plaine.

The first 2D seismic survey at the Belle Plaine Potash Facility was completed in 1998. This was followed by the first 3D seismic survey in 2000. Seismic coverage was expanded with surveys in 2001, 2005, 2008, and 2010. Seismic coverage is shown in Figure 7-1. Mosaic contracts all seismic work including surveys, interpretation, and maintenance of the seismic model to a qualified third-party.

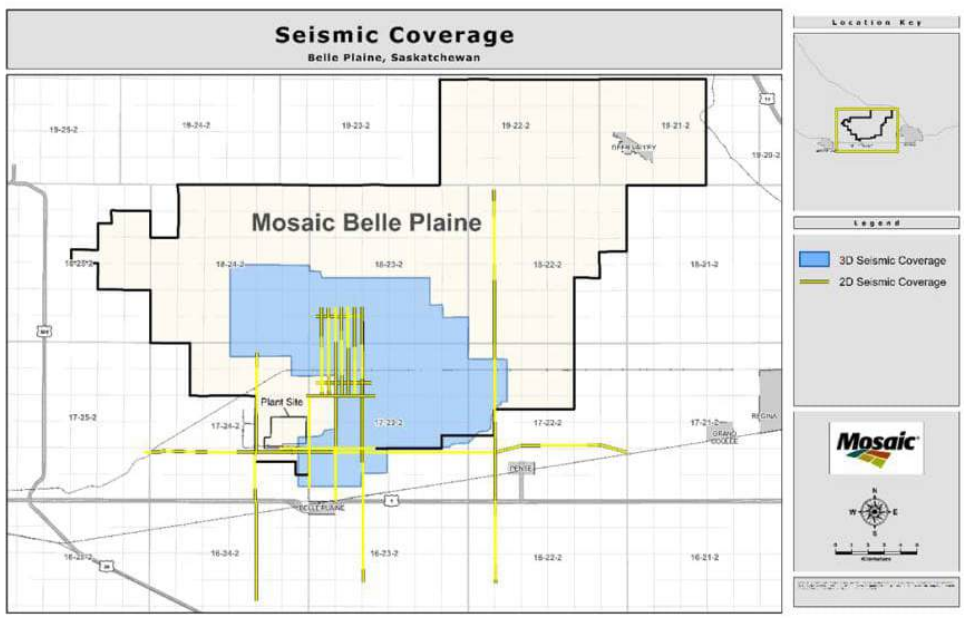


Figure 7-1: Seismic Surveys

7.1.5 Petrology, Mineralogy, and Research Studies

Any studies that may have been done in the exploration stage and early production years (1960s) are no longer available for review. There have been no recent petrology and mineralogy studies completed.

In 2021, a density study was completed by RESPEC to provide additional density information to support the Belle Plaine mineral resource and mineral reserve estimates.

7.1.6 Exploration Potential

Due to the lateral continuity of the potash mineralization in the Belle Plaine area, the potential to increase mineral resources is good. There is a reasonable expectation that the majority of inferred mineral resources could be upgraded to indicated or measured mineral resources with continued exploration.

7.2 Drilling

7.2.1 Overview

The first potash exploration hole drilled at the Belle Plaine property was Standard Chemical Stony Beach #1 in August 1960. Fourteen additional exploration holes were drilled from August 1960 to June 1968. From that point on, selected

production wells were identified as exploration wells and registered with the Saskatchewan government well drilling authority.

The potash mineralization in most early wells was cored and the potash bearing zones were analyzed. These wells were also logged with a calibrated gamma ray tool. Calibration charts were constructed, quantitatively relating potash grade to the gamma ray readings. All current production wells arc evaluated using these gamma ray logging techniques.

7.2.2 Drilling on Property

The exploration drilling completed on the Belle Plaine property is listed in Table 7-1. The location of the bottom of the exploration holes is shown on Figure 7-2.

In addition to exploration drilling, 756 production wells totaling 4,432,233 ft. (1,350,945 m) of additional drilling has been completed and supports the mineral resource and mineral reserve estimates. These holes represent drilled wells that arc used for solution mining for each of the planned caverns. Each of these holes is gamma logged for K.C1 grade information.

Table 7-1: Exploration Drilling Summary

Well Identifier	Legal Subdivision	Section	Township	Range	Year Drilled	Total Depth (ft-)	Total Depth (m)	Comments
60H039	16	22	17	24	I960	5,594	1.705	Stan Chem SB No 1
61C023	12	11	17	24	1961	5,704	1.739	Kalium Belle Plaine SB No 2
61C037	12	16	18	24	1961	5,451	1,661	Stony Beach No 3
61D025	12	11	17	24	1961	5,641	1,719	Kalium Belle Plaine SB No 4
61E037	5	16	18	23	1961	5.440	1.658	Stony Beach No 5
63AO11	16	26	17	24	1963	5,503	1,677	Stony Beach SB No 6
63A042	6	30	17	23	1963	5,512	1.680	Stony Beach SB No 7
63A042	6	30	17	23	1963	5,544	1,690	Stony Beach SB No 7A
63C018	4	19	17	23	1963	5,600	1,707	Stony Beach SB No 8

63L063	9	23	17	23	1963	5,539	1,688	Kalium Belle Plaine 9
65FI23	9	26	17	24	1965	5,587	1.703	Kalium Belle Plaine SB No 9
65E090	5	25	17	24	1965	5,604	1.708	Kalium Stony Beach No 10
65G136	3	26	17	24	1965	5,622	1,714	Kalium Belle Plaine SB No 11
65H067	1	25	17	24	1965	5,533	1,686	Kalium Belle Plaine SB No 12
68E096	9	24	17	24	1968	5.513	1,680	Kalium Belle Plaine SB No 15
841206	13	18	17	23	1984	6,120	1,865	Kalium Belle Plaine BP17012
85J340	15	12	17	24	1985	5,525	1.684	Kalium Belle Plaine BP19051
86A341	1	13	17	24	1986	5,684	1,732	Kalium Belle Plaine BP19072
92A040	6	17	17	23	1992	6,190	1,887	Kalium Belle Plaine BP23032
94G140	5	20	17	23	1994	6,008	1.831	Kalium Belle Plaine BP25061
98B163	4	30	17	23	1998	5,615	1.711	Kalium Belle Plaine BP27O42
99L144	1	31	17	23	1999	5,860	1,786	Kalium Belle Plaine BP29041
99L145	5	31	17	23	1999	5,861	1.786	Kalium Belle Plaine BP29061
OIL.IOO	5	05	17	23	2001	5,955	1,815	IMC Belle Plaine BP3I072
01L101	8	05	17	23	2001	5,723	1,744	IMC Belle Plaine BP31052
08B136	3	21	17	23	2008	5,610	1.710	Mosaic Belle Plaine BP35082
09E128	2	21	17	23	2009	6,037	1.840	Mosaic Belle Plaine BP361 11
1OKI06	2	22	17	23	2010	5,676	1,730	Mosaic Belle Plaine BP38102
12B405	4	22	17	23	2012	5,994	1.827	Mosaic Belle Plaine BP39032
148132	14	22	17	23	2020	6022	1836	Mosaic Belle Plaine BP41101
310382	4	25	17	23	2024	5961	1,817	Mosaic Belle Plaine BP4301 1
Total						**177,228**	**54,019**	

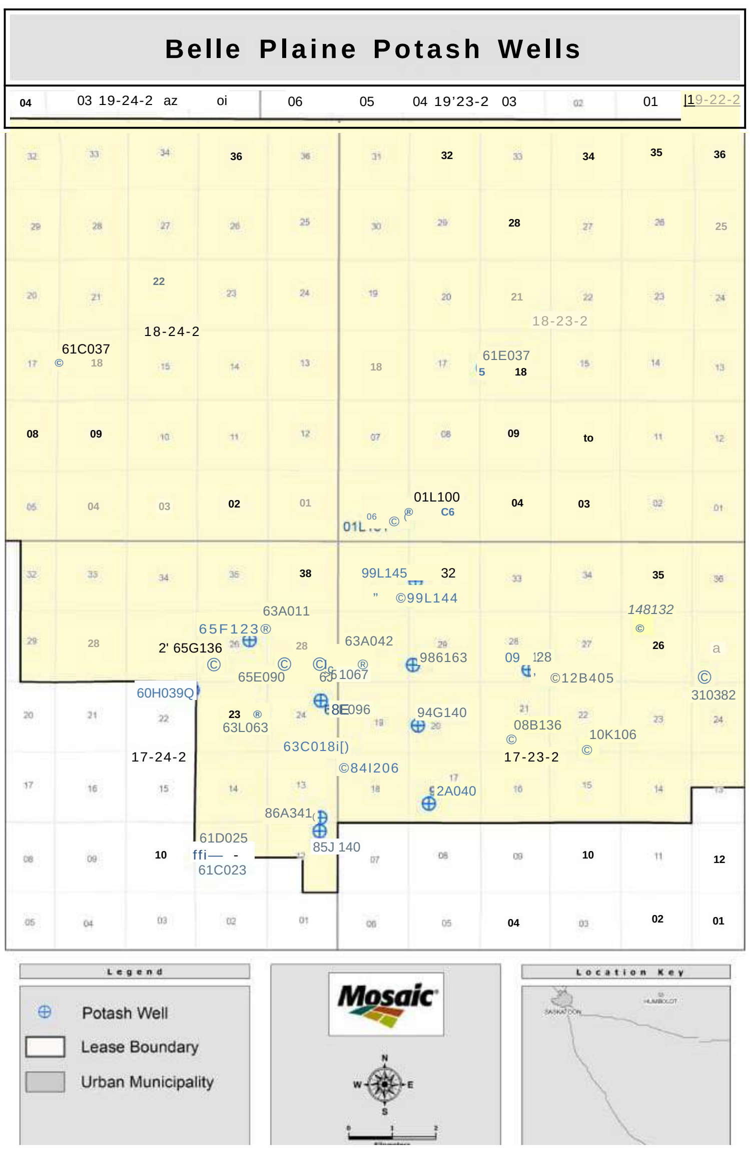


Figure 7-2: Exploration Drill Hole Locations

7.2.3 Drilling Supporting Mineral Resource Estimates

The exploration drilling used to support the Belle Plaine mineral resource estimates are listed in Table 7-2. Core analysis methods were included to indicate whether the hole core samples were assayed, or grade was estimated from downhole gamma logging.

It is important to note that the average zone thickness and grade defined by the exploration drilling is 100.59 ft. (30.70 m) at an average grade of 29.61% KCI. These support the thickness and grade assumptions used to estimate mineral resources.

Table 7-2: Drill Summary Table Supporting Mineral Resource Estimates

Well Identifier	Legal Subdivision	Section	Township	Range	Total Zone Thickness (ft.)	Total Zone Thickness (m)	Total Mining Zone Grade (%KCI)	Core Analysis Method
60H039	16	22	17	24	111.50	34.0	27.4	Assay
61C023	12	II	17	24	107.26	32.7	26.2	Assay
61C037	12	16	18	24	110.50	33.7	24.8	Assay
6ID025	12	11	17	24	94.00	28.7	23.7	Assay
61E037	5	16	18	23	107.20	32.7	26.1	Gamma
63A01 1	16	26	17	24	114.92	35.0	30.1	Assay
63A042	6	30	17	23	102.55	31.3	29.2	Assay
63C018	4	19	17	23	110.78	33.8	29.0	Assay
65G136	3	26	17	24	81.66	24.9	25.5	Assay
85J340	15	12	17	24	77.00	23.5	37.4	Gamma
86A341	I	13	17	24	74.00	22.6	39.7	Gamma
92A040	6	17	17	23	89.00	27.1	18.1	Gamma
94G140	5	20	17	23	92.00	28.0	35.3	Gamma
98B163	4	30	17	23	117.20	35.7	26.6	Gamma
991.144	1	31	17	23	97.50	29.7	30.5	Gamma
99LI45	5	31	17	23	104.00	31.7	31.1	Gamma
01 LI00	5	05	17	23	99.00	30.2	32.1	Gamma
01L101	8	05	17	23	106.00	32.3	36.6	Gamma
08B136	3	21	17	23	102.00	31.1	35.3	Gamma
09E128	2	21	17	23	111.00	33.8	31.3	Gamma
10K106	2	22	17	23	74.50	22.7	35.2	Gamma
12B405	4	22	17	23	119.50	36.4	23.6	Gamma
148132	14	26	17	23	107.98	32.9	23.7	Assay
310382	4	25	17	23	103.2	32.2	32.2	Gamma
Average					**100.59**	**30.70**	**29.61**	

7.2.4 Drilling Excluded for Estimation Purposes

Table 7-3 outlines the drilling that was excluded for mineral resource estimation purposes. The reason that these holes were excluded is that they occur within the mined out area.

Table 7-3: Drill Summary Table Excluded for Estimation Purposes

Well Identifier	Legal Subdivision	Section	Township	Range	Total Depth (ft.)	Total Depth (tn)	Comments	Reason for Exclusion
63L063	9	23	17	23	5,539	1.688	Kalium Belle Plaine 9	Within mined out area
65F123	9	26	17	24	5.587	1,703	Kalium Belle Plaine SB No 9	Within mined out area
65E090	5	25	17	24	5.604	1,708	Kalium Stony Beach No 10	Within mined out area
6511067	1	25	17	24	5,533	1,686	Kalium Belle Plaine SB No 12	Within mined out area
68E096	9	24	17	24	5,513	1.680	Kalium Belle Plaine SB No 15	Within mined out area
841206	13	18	17	23	6,120	1,865	Kalium Belle Plaine BPI7012	Within mined out area

7.2.5 Drill Methods

All historical exploration wells were drilled vertically using standard oil and gas well drilling techniques available at that time. Modem drilling uses standard rotary techniques combined with directional drilling utilizing mud motors and MWD (Measurement While Drilling) equipment.

Single shot, multi shot, and MWD directional surveys are run during the drilling process. A final multi-shot directional survey is completed when total depth is reached.

In the first three exploration wells hydrogeology was evaluated by drill stem tests run primarily on the Mannville Formation. Testing has also been done on the Dawson Bay Formation to evaluate for the presence of formational water immediately above the Prairie Evaporite. As all production wells arc cased and cemented to surface, any presence of formational water is isolated from the ore body, other formations, and access to surface.

Any geotechnical studies completed on core from the original exploration wells are no longer available for review. Production drilling in the past 50 years has identified areas of concern such as lost circulation issues encountered during drilling and casing issues that develop during production mining of a cavern. Standard operating procedures have been developed to mitigate all geotechnically related issues that could affect production.

7.2.6 Geological Logging

Core Logging

Core was retrieved from nine of the original fifteen exploration wells at Belle Plaine. A grade estimation process using gamma logs was developed in the past, and that combined with geological information from production wells and the known continuity of the mineralization, resulted in justifying that very limited coring would be completed in subsequent years.

In 2020, core was retrieved from two planned production wells to support the grade interpretation and calibration of the gamma geophysical logging system and to establish core handling protocols. The field team included Mosaic drilling personnel and geological support as well as third-party core recovery professionals and a field projects management team. The following procedure was used in the overall process:

- The field recovery of the core was technically managed by a core retrieval specialist. Initial core review and handling was supervised by the geologist to ensure a high-quality physical record was maintained. All standard procedures and quality control measures were adhered to for this drilling campaign.
- The drill core was secured for shipping with the appropriate chain of custody documents and delivered from the site to the laboratory facility where it was received, inspected and sorted.

- The SRC (Saskatchewan Research Council) laboratoryan ISO/1EC 17025: 2017 Accredited Testing Laboratory, is equipped with an alarm system to ensure the security and integrity of the core when the laboratory is not under direct surveillance. SRC's laboratory is temperature and humidity controlled to prevent core from rapidly deteriorating.
- The core was then cleaned and arranged sequentially on the facility's logging tables.
- All core segments were re-fitted together in the best possible manner to restore the core to its original condition and length.
- The core is remeasured and labeled. All field measurements are retained for cross-referencing. Each core box has its own unique information, including the depths corrected using available geophysical wirelines.
- Depth correcting is a quality assurance quality control (QA/QC) measure undertaken by the geologists to ensure that accurate depths arc recorded for critical elements observed in core. Depth correcting must be

performed prior to any geological analysis of the core and all depth corrections must be peer reviewed. Where appropriate, a correction factor could be applied to the measured depth (MD) to calculate the true vertical depth (TVD) over the cored interval.

- Once the initial assessment has been performed, the next step is for the geologist to begin the detailed description. Core descriptions are entered directly into the geological logging database. The geologist is expected to adhere to the following format and sequence of elements where applicable.
  - Lithology (major), then minor lithology (if applicable)
  - Rock color
  - Rock texture
  - Rock hardness and competency
  - Structural deformation
  - Mineralogy and fossils
  - Other special features
  - Porosity and permeability
  - Basal contact

<u>Geophysical Logging</u>

Gamma ray and neutron logs have been collected for every exploration and production well at the Belle Plaine Potash Facility. Open hole logging is completed when a well reaches planned total depth and the logs are used to interpret the thickness and grade of the orc body at that location. Logged data is also used to confirm stratigraphic elevations required for production casing installation. Cased hole logs and cement bond logs are completed prior to the well being put into production.

In compliance with MRO 291/21, one drill hole per section is registered with a complete geological data submission provided to The Subsurface Geological Laboratory. Geophysical logs are collected from the open hole from total depth to surface by a logging contractor. The suite usually consists of CNL (Compensated Neutron Log), LDT (Litho-Density Tool), STI (Simultaneous Triple Induction), BHC (Borehole Compensated Sonic), and GR (Gamma Ray). For these registered wells, drill cuttings arc collected every 16.4 ft. (5 tn) from the Second White Specks Formation down to the bottom of the hole.

Grade estimation utilizing gamma logs has been done at the Belle Plaine Potash Facility since the early days of exploration through the present. The early gamma grade to assay comparison work is no longer available for review. It appears that the original methodology has been adjusted over the years to adapt with industry down hole gamma ray tools.

Two production wells were cored in 2020 to support the grade interpretation and calibration of the gamma geophysical logging system. The recent calibration check has been evaluated by a third-party potash consultant (RESPEC) to ensure applicability of the method with respect to sample quality grade estimation.

Two methods of correlating gamma ray API units and % KjO were reviewed. The first, described as the “Alger and Crain method” (Alger and Crain, 1966) uses the following data to determine the correlation between gamma ray API and % KzO:

- Borehole diameter at depth of interest
- Mud weight
- Downhole logging speed
- Centralization or decentralization of gamma tool downhole
- Calipers - hole condition, shape of hole (washouts, etc.)

The second, described as the “Bannatyne method” (Bannatyne, 1983) uses a linear relationship between gamma ray API and % K?O and does not consider borehole diameter, mud weight or other downhole parameters.

An analysis was completed using a combination of the Bannatyne and Alger-Crain methods that provided better results than either of the methods alone for the mining intervals. This method, described as Gamma Ray Equivalent Calculation (GREC) is capable of estimating K2O values, as indicated by an assay and GREC difference ranging from a minimum 0.1% to maximum 2% K2O.

7.2.7 Recovery

The average core recovery from 11 historical cored wells (1960 to 1965) is 98%. More recently, the recovery estimated from the 2020 core drilling is 99.5%. No additional coring as of 2024.

7.2.8 Collar Surveys

Historical exploration wells were originally surveyed by a Land Survey or registered in the Province of Saskatchewan. Current standard operating procedure is for the production well collars to be surveyed by a third-party licensed survey contractor using GPS.

7.3 QP Interpretation of the Exploration Information

In the opinion of the QP for this section of the Technical Report Summary the scientific and technical information contained in this section has been interpreted in a professional manner and has been properly disclosed.

In addition, the quantity and quality of the lithological, collar and drilling data collected in the exploration program prior to 1968 and the production drilling completed after 1964 are sufficient to support mineral resource and mineral reserve estimation. The reasons for this arc as follows:

- The core logging meets industry standards for this type of deposit.
- The collar surveys have been performed using industry-standard instrumentation.
- Down-hole surveys were performed using industry-standard instrumentation.
- Drill orientations are appropriate for the mineralization style and have been drilled at orientations that are acceptable for the orientation of mineralization for the bulk of the deposit area.
- Drill orientations appropriately test the mineralization.
- Core recovery data indicates that the representative sampling from the core drilling programs has been achieved.
- The drilling pattern and density are consistent with industry standard.
- The recorded data and classification of core constituents are in line with industry practice.
- The drilling process and equipment are consistent with industry standards for this type of deposit.

- Data that is determined to be inadequate is not used in the estimation process.

8.0 Sample Preparation, Analyses and Security

8.1 Introduction

The potash horizon at Belle Plaine was evaluated based on core samples collected from 8 historic exploration drill holes. The data from this interpretation has served as the basis of understanding, and until 2020 was the only physical core analysis that was performed on the property to support the grade estimation. Although it is not possible to audit the assay results for portions of the core that arc no longer retained, the QP considers the data collection processes to be acceptable based on the historical standard practice. The QP is confident that the included results are suitable for consideration in the mineral reserves and mineral resources estimations.

In 2020, two production wells were selected for core analysis to complete calibration checks on the geophysical logging process used at site. This section outlines the standard processes that are in place regarding the sampling, assay, and data collection methods. The entire coring process was supervised by Mosaic personnel. Sampling, assay, and data collection and the standards practices followed were supplied by consulting experts.

The 2020 geochemical sampling activities were undertaken by RESPEC staff at the Saskatchewan Research Council (SRC) Core Lab Facility. Sample preparation, analysis and security was performed by Geoanalytical Laboratories - Saskatchewan Research Council (SRC). This lab is based in Saskatoon, Saskatchewan at 125, 15 Innovation Blvd. Future core processing and analyses will align with these 2020 processes and standards.

8.2 Core Sampling Method

8.2.1 Procedures

Determining individual sample locations was based on visually inspecting the core and consulting the respective wireline logs. This information was used by RESPEC geologists to assess changes in mineralogy, lithology, and grade. Individual samples were selected according to the following process:

- Changes in lithology, mineralogy. IGO grade, crystal size, or insoluble content warranted a new sample.
- Clay seams were broken out as their own samples, with approximately 0.4 inches (1 cm) overlap on either side of the scam.
- Samples were limited to a range of 12 to 20 inches (30 to 50 cm). Within barren intervals, sampling limits did not exceed 30 inches (75 cm) and the minimum sample length was no less than 12 inches (30 cm).
- For sampling the Prairie Evaporite, the RESPEC quality standard was for each drill hole to be sampled from one sample above the 2nd Red Beds / Prairie Evaporite contact continuously down to 30 ft. (10 m) below the Estcrhazy Member.
- Once the sample interval to be assayed was chosen, the core was slabbed lengthwise into halves with the use of a guide to ensure a straight cut across the diameter of the core. The core was cut with the dry, 2 Hp band saw equipped with a dust collection system at SRC. Only one piece of core was removed from the core box at any one time and slabbed down the vertical orientation lines marked on the core. Once slabbed, the two complimentary core halves were placed back into their respective box, with cut surfaces facing up, prior to the next piece being taken to ensure proper stratigraphic order. This process was repeated until the cored interval was slabbed. The cutting process was supervised by a RESPEC geologist,
- Prior to sample cutting, the core was divided into individually marked samples with straight lines perpendicular to core axis, by a RESPEC geologist. The upper half of the core with the marked sample intervals was cut with the band saw, where no natural breaks occur. Only one piece of core was removed from the core box at any one time and cut across the marked sample lines. This cutting process was repeated throughout the assay interval.

8.2.2 Quality Control

The following quality control practices support the core sampling process.

- The SRC laboratory is temperature and humidity controlled to prevent core from rapidly deteriorating.
- Depth correcting is a quality assurance quality control (QA/QC) measure undertaken by the RESPEC geologists to ensure that accurate depths are recorded for critical elements observed in core. Depth correcting must be performed prior to any further geological analysis of the core and all depth corrections must be peer reviewed. Where appropriate, a correction factor is applied to the measured depth to calculate the true vertical depth over the cored interval.
- Digital photographic records of the core and sample intervals are systematically collected and compiled by RESPEC (Table 8-1) to ensure sample location and depth intervals are accurate.

Table 8-1: Digital Photograph Records

Photo Series	Interval	Location	Core Condition	Moisture Content
Primary	Cored Interval	Field /Lab	Whole	Wet / Dry
Assayed	Assayed Interval	Lab	Slabbed	Dry (Brine)
Assaycd-Tagged	Assayed Interval	Lab	Slabbed	Dry (Brine)

8.3 Sample Preparation

8.3.1 Process

Samples were prepared for assaying and analytical procedures following the process outlined in SRC's Method Summary 62.3: Assay Potash Analysis:

- All samples are kept in their original bags throughout all preparation procedures.
- Samples are dried in their original bags.
- The entire dried sample was crushed to 95% minus 2 mm.
- A representative subsample was taken by passing the samples through a riffle splitter to riffle out an aliquot for mill grinding. The riffle has 10 riffle banks per side with !6 inch (1.3 cm) openings. All crushed "rejects" were vacuum sealed and returned to the original pails. The lab places coarse rejects into storage until requested by the customer.
- Ilomogenization of the subsample was achieved by mild steel grind to 95% minus 0.106 mm.
- Transfer a portion of the homogenized aliquot to a barcode labeled plastic snap top vial. The remaining ground material (pulp) was sealed in the pulp bag.

8.3.2 Quality Control

Quality control performed during the sample preparation process at the SRC lab includes:

- Screen size analysis on 5% of samples is performed, after crushing to minus 2 mm and after pulverization to minus 0.106 mm, 95% passing. All data is tracked and available to the client.
- Loss of mass monitoring on 5% of samples is performed after crushing to minus 2 mm and after pulverization to minus 0.106 mm, 95% passing. All data is tracked and available to the client.

- Silica sand was used at the start of every group to clean the grinding mills. Silica sand was used to clean grinding mills between samples as required (sticky samples). Sample blanks (quintus quartz) were inserted at a rate of 5% per group. All data is available to the client.
- A quintus quartz sand blank is inserted at a rate of 1 per 20 samples or 1 per group in the case there are less than 20 samples.
- A pulp repeat (R) is included with every set of 36 samples and 1 split sample repeat (SSR) with every group.
- Results include 1 reagent blank per group being processed.

8.4 Assaying and Analytical Procedures

8.4.1 Procedures

The basic Potash Exploration Package (ICP 2 Geo Chem) offered by SRC is used.

The assaying and analytical procedures performed at the SRC lab for the Belle Plaine core involved soluble and insoluble digestion and ICP-OES analysis. An aliquot of the sample pulp was weighed and placed in a volumetric flask. Deionized water from a thermostatically controlled system was added to the flask then shaken and placed in an agitated thermostatically controlled water bath. The volumetric flask was allowed to cool then topped to volume with deionized water and shaken. The solution was then vacuumed filtered. The reweighed filter paper was dried overnight cooled in a desiccator and weighed. The weight percent of insolubles is estimated. The detection limit for this method is 0.1 wt.%. Only calibrated glassware is used as per ISO 17025 requirements.

A moisture determination is also completed. An aliquot pulp is placed into a pre-weighed crucible and heated. The sample is weighed again, and the moisture estimated as wt.% with a detection limit 0.1 wt.%.

Assay standards are labeled with the sample number in which they were inserted after with a corresponding A to denote no thickness is given to the standard sample.

8.4.2 Density Determination

Density is estimated at the SRC lab using w'holc dry cores. The samples arc dried and weighed, then coated with an impermeable layer of wax and re-weighed. The samples are then weighed while submersed in water. All weights are entered into a database and the rock density estimated for each sample. The temperature of the water is recorded at the time of all measurements and included in the calculations. The detection limit is 0.01 g/cc. The associated QA/QC consists of one of every 40 samples is analyzed in duplicate with all QC results required to be within specified limit of 0.01% g/cc, otherwise corrective action is taken. The corrective action is to redigest and analyze the samples.

8.4.3 Quality Assurance and Quality Control

Selection of the correct insertion of standards is completed by the Qualified Person (QP). To ensure that the standards arc inserted at different intervals than the assaying labs standards, RESPEC inserts POT004B and POT003B every twenty samples, aligning with the prescribed sequence that SRC uses for insertion of their own standards.

Inserted QA/QC samples include:

- Reference materials POT004B (higher grade) and POT003B (lower grade) were developed by SRC and are alternately inserted by SRC every twenty samples.
- Blanks (QQ) are inserted after high gamma readings shown on the wireline. Typically, 1 blank sample is inserted for each potash formation.

All SRC instruments are calibrated using commercial standards.

Quality control samples from the Lab arc prepared and analyzed with each batch of submitted samples. One in every 40 samples is analyzed in duplicate. All Lab quality control results must be within specified limits, otherwise action is taken. The corrective action is to redigest and analyze the samples.

8.5 Sample Security

Sample security is important to maintaining the integrity of the analytical results and interpretation and use of the results for mineral resource estimation. The Chain of custody documentation is prepared for tracking of the core from the field to the logging facility. The logging facility has designated areas where Mosaic core is isolated from other projects. Sample preparation is completed in the same facility as core logging to eliminate contamination risk.

The SRC laboratory is equipped with an alarm system to ensure the security and integrity of the core when the laboratory is not under direct surveillance.

Digital photographic records of the core are systematically collected and compiled by RESPEC as listed in Table 8-1.

8.6 Database

All the assayed intervals are compiled into the drilling database for further evaluation and compositing. The data is managed in a geological database management system called GcoScqucl. The historic details have been verified by the QP and digitized to be included with recent drilling information. The geological database includes all available exploration drilling and is a combination of assayed core data and interpreted geophysical log data.

Available geophysical log interpretations have been compiled from production drilling in the Mining Area. This information has been audited by the QP with respect to the ore zone interval selected and associated grade interpretation. Pertinent geological details are included in the database including elevation, formation tops, and grade interpretation to allow for confirmation of the average global grade and deposit dimensions used for the mineral reserves and mineral resources estimates.

8.7 QP Opinion on Sample Preparation, Security, and Analytical Procedures

It is the opinion of the Section 8 QP that the historical pre-1965 and 2020 sample preparation, security, and analytical procedures are suitable to support mineral resource and mineral reserve estimation. The rational for this is as follows:

- The 2020 core sampling, sample preparation, security and analytical procedures were conducted using industry standard procedures by RESPEC and SRC.
- It is assumed, based on a review of existing documents and compilation reporting, that the historical core sampling, sample preparation, security and assaying processes were appropriate for the time of data collection. The majority of the historical drilling areas have been mined and through production records, the QP has gained confidence that these estimations reconcile with realized mining expectations.

9.0 Data Verification

9.1 QP and Internal Data Verification

The Section 9 QP and the Belle Plaine Logging Supervisor perform the following regular internal data validation:

- Well logs are collected during production drilling. These logs are generated under the supervision of site Logging Technicians in accordance with the Mosaic standard data collection procedure. Calibration checks are completed in the field and on the well logging tools as specified by the manufacturer. A record of the specific logging tool and deployment parameters is retained with each record.
- The geophysical logs are reviewed by the Logging Technicians and provided to the Logging Supervisor and Geologist for additional interpretation including bed presence, elevation, thickness and quality. These interpretations arc peer reviewed by the Geologist, and the Logging Supervisor prior to inclusion in the database.
- The logged interpretations are compared to the predicted elevations generated in the 3D seismic model. All new elevation information is provided to the third-party seismic consulting team for inclusion in the 3D seismic model to maintain current interpretation for mine planning. The production drilling data generally agrees with the seismic interpretation and is reviewed as new information when it becomes available.
- All new grade and thickness information is included in the drilling database. Average thickness and grade are recalculated to ensure that the most accurate estimate is applied to the mineral reserve and mineral resource estimates.
- The QP has reviewed the existing copies of the analytical lab results for the historic drilling data used in the mineral resource and mineral reserve estimates. There is no historic core remaining from the original drilling campaigns, but the logged results and assays arc available and included in the grade and thickness estimation.
- A review and audit of the production drilling database has been completed to ensure alignment with the current data requirements. Additional details have been included to allow' for a refined evaluation of the three individual potash-bearing members mined at Belle Plaine.
- A review and audit of the internal GREC (Gamma Ray Equivalent Calculation) applied at Mosaic was completed by the external consulting team at RESPEC. The conclusion of the study is that the grades estimated for the mining zones at Belle Plaine using GREC are sufficient for use in the mineral resource and mineral reserve estimation process.
- Drill core recovered from the mineralized zone in 2020 was examined by the QP. Assay intervals and stratigraphic markers were correlated to gamma ray logs to confirm application of the GREC (Gamma Ray Equivalent Calculation). The drill core has been analysed and is preserved in the sample repository of the Saskatchewan Subsurface Geological Laboratory as a permanent record.
- The QP has conducted discussions with past professionals and original site experts regarding historic data. Numerous academic reviews of the application of logging processes and the internally generated research have been performed to validate the data included in the mineral resource and mineral reserve estimation process.

9.2 External Data Verification

The following external data verifications have been completed supporting the Belle Plaine mineral resource and mineral reserve estimates.

- Two production wells were cored in 2020 to support the grade interpretation and calibration of the logging system. The recent calibration check has been evaluated by a third-party potash consultant (RESPEC) to ensure applicability of the method regarding sample quality. Current calibration standards for geophysical logging tools are considered adequate, however the initial review' of the conversion from the gamma response

to %KC1 indicates that there may be an opportunity to further refine the calculation in the future to ensure the best estimation of grade possible from this data. For the intended purposes, the grade data reported from production drilling is deemed suitable for consideration in the ore reserves and resources estimation.
- All new' drilling results are tabulated and provided to the third-party geophysical consultants. This geological data is used to ground-truth the 3D seismic model and refine the interpretation used for mine planning.
- The density has been verified by a third-party potash consultant (RESPEC) to ensure applicability in the mineral reserves and mineral resources estimate.

9.3 QP Opinion on Data Adequacy

It is the opinion of the QP that the data being used and relied upon in the Technical Report Summary is adequate to support mineral resource and mineral reserve estimation. The rational for this is as follow's:

- The data quality and quantity are aligned with industry standards.
- There is adequate drilling information to produce accurate mineral resource and mineral reserve estimates.
- The verification process is adequate to validate the data used as part of the mineral resource and mineral reserve estimation process.
- The historical assay information is adequately supported by the reconciliation to actual mining results and activity. Mining recoveries and expectations are supported by 60 years of production records.
- The exploration results have been reviewed and there is confidence in the interpretations. The QP has not completed duplicate analysis based on the condition and limited availability of original core samples.
- During the preparation of the report, the QP has reviewed the historical data set used to confirm the potash intervals included in the mineral resource estimates, however there is no formal documentation regarding the quality control measures and data verification procedures applied by the initial assaycr.
- Recent calibration of the geophysical logs to the assayed values serves to verify the grade interpretation used to describe the active Mining Area. The level of confidence in this analysis supports this modified grade interpretation for solution mining. It is the QP's opinion that the grade interpretation generated through Mosaic's conversion of API to K2O is accurate for the MRMR estimates required for solution mining.
- Through the existing 3D seismic interpretation, combined with the regional geology interpretation, the QP is able to verify that potash is present with a level confidence that supports the mineral resource and mineral reserve estimates.
- The QP has reviewed select internal reports and memos prepared by Mosaic staff and notes that those reports and memos have not identified any material deficiencies with the adequacy of the data at the time the Technical Report Summary was prepared.

10.0 Mineral Processing and Metallurgical Testing

10.1 Introduction

Metallurgical testing and quality control arc crucial to Belle Plaine mining and processing. Offline (laboratory) testing is a necessity to support the solution mining process because of inherent limitations of online measurement of specific fluid streams or solid product streams. Some of the limitations of online measurement in solution mining stem from the properties of solid and liquid flow streams. These flow streams are highly corrosive, abrasive and tend to plug instrumentation because of the precipitating nature of the solution mining process discussed in Section 14. Other noted limitations of online measurement technology also include the accuracy and repeatability of results. As such, the Belle Plaine on-site laboratory is utilized to ensure operating targets are being met throughout the process and to confirm final product purity/quality.

10.2 On-Site Laboratory

The Belle Plaine on-site QC laboratory (QCL) functions as a metallurgical lab for analyzing process conditions, as well as a Quality AssuranceQuality Control (QA/QC) lab for confirming product quality to customer specifications. The lab operates 24 hours/day, seven days a week to meet site needs and is currently staffed by approximately 12 employees. They arc owned by Mosaic and operated by Mosaic personnel and arc not certified labs.

The QC Supervisor and QC Specialist arc responsible for training and onboarding new employees. One-on-one training is provided until competency has been demonstrated in required job duties and proficiency examinations for each training area are conducted and maintained in Mosaic's training database. Review of the quality manual is done following a document control review process by the QCL Supervisor, where any updates must go through a formal controlled document change procedure, changes must be approved by the QA/QC Manager. Changes to the lab's standard operating procedures are under the control of the QCL Supervisor and the QC Specialist. Quality control worksheets arc filed, and records arc maintained for a minimum of one year.

The lab is located within the site's administrative building, making it central to the many groups accessing their services. The lab consists of numerous types of industry standard benchtop lab equipment, as well as some notably larger footprint analytical equipment. The lab is well equipped with fume hoods, chemical storage, and PPE to safely perform analyses.

Lab analyses are employed throughout the entire solution mining process (mining to shipping). Samples arc primarily collected by operations personnel and brought to the lab for analysis on a set routine. These routines have been established by site engineering and operations personnel, based on the criticality and variability of each specific stream, noted over the site's decades of operation. The lab receives solid and liquid samples, each analyzed following well-defined procedures that are subject to the Mosaic Document Control Standards. Major analyses utilized on-site are summarized in Table 10-1 and the frequency of the analyses is listed in Table 10-2.

Processing related lab results are imported into a Laboratory Information Management System (LIMS), that feeds the site's larger reporting-based database. Shipping related lab results are entered into a PLS (Product Loading System) system, that creates a history of the values and provides a certificate of analysis to customers through the Mosaic SAP billing system.

Table 10-1: Regular On-Site Laboratory Testing

Analysis/ Equipment	Sample Type	Available Measurement	Application
XRF (X-Ray Fluorescence)	Liquid/Brine/Slurry	NaCl (g/L) KCI (g/L) MgCla (g/L) Br (g/L) CaClj (g/L) $SO4^{2}$ (g/L)	• Individual Cavity Streams • Mining Area Streams • Refinery Streams • Cooling Pond Streams
	Solid	NaCl (wt.%) Br (ppm)	• Refinery Streams • Cooling Pond Streams • Shipping Area Streams
Flame Photometer	Solid	KCI (wt.%) NaCl (wt.%)	• Evaporator Streams • Refinery Streams • Shipping Area Streams
1CP (Inductively Coupled Plasma) Spectroscopy	Liquid/Brine/Slurry	Ca^{+2} (ppm) Mg^{+2} (ppm) $Fe^{t2/+}$-'(ppm) Al^{+3} (ppm) $SO,^{2}$ (ppm)	• Refinery Streams
	Solids	Ca^{+2} (ppm) $Mg*^{2}$ (ppm) $Fe^{,2rt3}$ (ppm) Al^{+3} (ppm) $SO,^{2}$ (ppm)	• Refinery Streams • Cooling Pond Streams • Shipping Area Streams
Manual Sieves/ Cam Sizer	Solids	Size Distribution over broad mesh sizes	• Crystallizer Body Samples • Intermediate Dry End Streams • Shipping Area Streams

Table 10-2: Notable Frequency of Samples

Sample Name	Frequency of Samples	Analysis Type
Mining Area Individual Cavity Returns	x 2 per week	Chemistry
Mining Area Main Raw Feed Lines	x 1 per day	Chemistry
Mining Area Feed Stream	x 1 per day	Chemistry
Evaporator Circuit Streams	x 2 per 12 hour shift	Chemistry
Crystallizer Area Streams	x 2 per 12 hour shift x 1 per day x 1 per week x 1 per month	Chemistry Size
Cooling Pond Area Streams	x 2 per 12 hour shift x 1 per week	Chemistry
Dryer and Dewatering Streams	x 2 per 12 hour shift	Chemistry
Sizing Area	x 4 per 12 hour shift x 1 per shift	Chemistry Size
Compaction Area	x 4 per 12 hour shift	Chemistry Size
Shipping	Every rail car Evety bulk truck K-life —Composite over shift Paper Bagging/Tote - Composite over shift	Per Customer Requirements: Chemistry • KjO Equivalent Content • Impurity Concentrations Size

10.3 Quality Control

Instrument calibration is performed with standards prior to each sample run on the ICP and Flame photometer. Standards of known concentration arc purchased and run to verify calibration curves for the ICP. In addition to this, controls arc used to confirm the validity of the in-house preparation, prior to running the XRF and ICP equipment. Control samples are prepared in the same manner as product samples to ensure accurate sample preparation. Known control samples are purchased for ICP, while XRF liquid controls are prepared internally by QCL Technologists and run as unknowns with each run of samples. Statistical Quality Control (SQC) practices arc in place in the Belie Plaine Quality Control Laboratory, where control sample values are plotted on SQC charts and maintained in Mosaic’s document control database. SQC charts are created for analytical methods and reviewed by the QCL Technologists, QC Supervisor or QC Specialist. Table 10-3 summarizes each analytical procedure used at Belle Plaine with method accuracy and precision, as determined by the Six Sigma Measurement Systems Analysis. QC Laboratory audits are completed yearly by Mosaic’s Quality Assurance team. The audit findings are given to the QC Supervisor and tracked in a software package.

Mosaic also participates in a Saskatchewan potash producers sample exchange program using the STPB method. The analysis is performed by all producers to verify the analytical methods as standardized methods. As per the International Fertilizer Association Method Harmonization Working Group’s evaluation of analytical methods, used globally for the quality testing of potassium content in Potassium Chloride Fertilizer, the STPB method is the preferred method or best practice methodology for use in the international fertilizer trade. Instrument calibration curves are based off generic methods.

Table 10-3: Sample Accuracy and Precision

Equipment	Descriptor	Accuracy
XRF	Liquids - In house control	+/- 1.5 Standard deviation of the mean
	Solids In house control	+/- 3.0 Standard deviation of the mean
ICP	Certified Control	+/- 10% from control value
	In house control	+/- 3.0 Standard deviation of the mean
Flame Photometer	Certified Control	+/-0.045 from control value

The ICP and XRF used to analyze samples have service agreements with the manufacturer, that include two preventative maintenance visits per year and emergency visits to troubleshoot instrument issues. Routine instrament maintenance is carried out by QCL Technologists and instrument specific logbooks document daily maintenance. Maintenance procedures for QCL equipment and instrument troubleshooting procedures are stored in Mosaic’s document control database.

Heavy Metal analysis is conducted on a quarterly basis on all major streams/final products. This analysis is conducted by SRC.

10.4 Database and Records

Composite samples are collected for each rail car, truck and bagged product lot number loaded at Mosaic Potash Belle Plaine. They are stored by QCL personnel in the shipment and truck storage rooms. Unit train composite samples are created by QCL personnel for customers as instructed in the QCL Shipment standard operating procedure. Unit train composite samples are retained on-site.

Certificates of analysis are prepared and issued by the Quality Control Laboratory (QCL) and are double signed by QCL Technologists prior to issuance to customers. Customers can obtain their Certificate of analysis from Mosaic Online, while certificates of analysis arc filed and records maintained in Mosaic's document management system for a minimum of three years. The American Feed Industry Association (AFIA) requires that BOL's must contain the guaranteed product grade information as required by Canadian Food Inspection Agency (CFIA), AFIA and US State Regulations. Changes to BOL information arc under the control of the QA Specialists or QA/QC Manager.

As the product is unloaded at ports for international shipment, it is sampled and analyzed by a third-party laboratory. This analysis is compared to the analysis on the product as the train was loaded to ensure accuracy. This provides third-party confirmation of final product purity by a company that has ISO/IEC 17025:2005 accreditation using industry standard methods of analysis.

Composite samples and certificates of analysis are linked using the following methods:

Material Identification (ID)

- Unique SAP Material ID numbers have been created for each grade of product produced.
- The Material IDs for bagged products identify the product grade and the bag/totc size loaded.
- Rail car product labels are required by several states including Washington, California and Oregon.
- Shipment load-lists identify when labels are required. Loadout personnel are responsible for the addition of specific labels to each car.
- Railcar product labels abide by the rules set forth by the Canadian Food Inspection Agency (CFIA), American Feed Industry Association (AFIA), and US State Regulations.
- Changes to rail car labels are under the control of the QA Specialists or QA/QC Manager.

Rail and Truck

- Unique Scale Ticket numbers are generated from PLS for each rail car and truck loaded.
- Scale Ticket Number can be traced to the rail car ID, SAP order number, Date of Loading, Material ID, retained composite sample and QCL generated analytical values.

Bagged Product

- Identified with a lot number, consisting of Material ID, the year of bagging and the bagging date using the Julien calendar.
- The destination of all bagged product lot numbers can be traced through PLS.
- Bagged product labels abide by the rules set forth by the Canadian Food Inspection Agency (CFIA), American Feed Industry Association (AFIA), and US State Regulations. Changes to bag labels are under the control of the QA Specialists or QA/QC Manager.

10.5 Metallurgical Test Work

Metallurgical analysis is performed throughout Belle Plaine mining and processing. Samples are typically taken by operations personnel and brought to the combined Metallurgical and QA/QC lab for analysis. This metallurgical analysis is subjected to the rigor discussed in the above section. Sampling locations and frequencies are also noted above.

Mining Area and cavity specific flow streams are subjected to metallurgical testing on a weekly schedule. Flows feeding and returning from each cavity arc analyzed on a set frequency, with information from the lab feeding back into site's data historian. Metallurgical data is combined with in-field flow measurement to track total KCI tons mined and KCI tonnage removal rates from each cavity over the entire life of the cavity. KCI tonnage withdrawal is tracked during development and production phases.

As previously discussed, a gamma log is collected from each borehole to identify the presence of KCI beds and the grade of KCI in each of those beds. This gamma log serves as a reference point throughout the development activities of a cavity and confirms the presence of KCI in the cavity that is to be developed. During the development of a cavity, which lasts approximately 5 years, the return concentrations from each cavity arc also recorded and tracked, further proving the presence and grade of KCI present in the mineralization.

10.6 Recovery Estimates

The total processing KCI recovery at Belle Plaine is dependent on the operation of the Belle Plaine Refinery and Cooling Pond areas, and the number of developing caverns that drive freshwater intake flow and deep well brine disposal flow. The demonstrated processing recoveries of KCI to date, discussed in Section 14, are estimated using third-party verification of inventories, government regulated scales, industry standard field measurement instruments.

and metallurgical testing on each individual cavity on a weekly schedule.

10.7 Metallurgical Variability

The combination of drill core sampling, gamma logs, 3D Seismic, and historically proven consistency of the ore grade surrounding the Belle Plaine site provides confidence to the Belle Plaine metallurgical consistency. Gamma logs and neutron logs have also proven a repeatability of KCI rich and non- KCI rich beds in the area mined below the Dawson Bay Formation, providing further confidence on the consistency of the potash bearing units.

10.8 Deleterious Elements

The sylvanite ore mined at Belle Plaine contains some deleterious elements that are monitored in several brine streams, solid stream, and finished products. The major elements of this group include sodium chloride (NaCl) and magnesium chloride (MgC12).

NaCl

NaCl is dissolved in underground caverns and precipitated in the Evaporator Area. The presence of NaCl precipitation in the Evaporator is integral to the site’s performance. NaCl is either sold, disposed of, or reused in critical process

flow streams that arc fed back to the Mining Area. Trace amounts of NaCl arc found in the Belle Plaine final product as a result of co-precipitation in the Belle Plaine processing.

MgC12

This compound is found in high carnallite regions of the Mining Area. The presence of high MgC12 in a cavity is observed as above average MgC12 concentrations in that cavity’s return borehole stream. Once brought to surface, the mass of MgC12 stays within the recirculating streams between the Refinery and Mining Area until it is disposed of through site’s brine injection wells. A small fraction of the mined MgCI2 will co-precipitate with KCI and washes in the Drying and Dewatering circuits allow a large fraction of the MgC12 to be washed off of the KCI crystal to meet customer specifications.

In 2020, the Belle Plaine Potash Facility performed an analysis to determine projections on MgCI2 concentrations in the raw feed that feeds the Cooling Pond and Refinery circuits. The analysis concluded that current and future projections of MgC12 are manageable with the site’s existing assets.

Other Deleterious Elements

Additional elements are noted in the mining and processing streams and final product. These elements/compounds are in trace concentrations and have shown no notable accumulations within the process or final products. These elements/compounds include calcium, aluminum, bromide, iron, and sulfate.

10.9 QP Opinion on Data Adequacy

It is the opinion of the QP that the mineral processing, metallurgical testing and analytical procedures used and relied upon in the Technical Report Summary is adequate to support mineral resource and mineral reserve estimation. The rational for this is as follows:

- The metallurgical and QA/QC procedures used in the QCL lab are conventional and are aligned with industry practice, meeting domestic and international requirements.
- The data quality and quantity arc aligned with industry standards and arc reasonably practicable.
- Test work programs, internal and external, continue to be performed to support current operations and potential improvements.
- The QA/QC processes for analyzing product and confirming accuracy is adequate.
- The metallurgical analyses and their respective analysis frequencies are appropriate for optimizing processing conditions and informing site personnel of anomalous conditions.
- Processing recovery projections are based on appropriate metallurgical test work and compared against historical production data for validity.

11.0 Mineral Resource Estimates

11.1 Introduction

Potash in Saskatchewan, including the mineralization at Belle Plaine, has been described as having "remarkable consistency of grade and thickness over many tens of kilometers'' (CIM Council November, 2003). This regional interpretation is used to interpolate the quality of the potash between data points used at Belle Plaine for mineral resource estimation. The geological information used to estimate the potash mineral resources at Belle Plaine includes core drilling, gamma-ray logging, and 3D seismic modeling.

The Belle Plaine mineral resources are reported as in-situ mineralization and are exclusive of mineral reserves. The mineral resources occur in the Esterhazy, Belle Plaine, and Patience Lake Members. Mineral resources that are not mineral reserves have not demonstrated economic viability utilizing the criteria and assumptions required at Belle Plaine.

A total of 60 years of solution mining history from -350 caverns and 756 production wells at Belle Plaine was considered when developing the criteria and methodology for the estimation of the mineral resources.

11.2 Key Assumptions

The following outlines the key assumptions used for the estimation of mineral resources at Belle Plaine.

- The mineral resources are estimated and reported as in-situ mineralization.
- The mineralization is assumed to be laterally continuous and consistent based on Mosaic's knowledge of the regional and local geology. Local seismic studies are used to refine the property geology for mineral resource consideration. Areas where mineralization is not present are geologically excluded from the mineral resource estimation.
- The average K.C1grade based on all production drilling for the three potash members combined is 30.6% KC1 (19.3% KiO). The drilling database used includes interpreted grades from gamma logs from production drilling. No local grades derived from drilling arc estimated or incorporated in the mineral resource estimation process, though they are used to update and verify the average global grade used.
- KiO (Potassium Oxide) is the common unit to compare concentrations between different types of potash. At Belle Plaine, the potash mined is commonly known as Muriate of Potash (MOP) or potassium chloride (KCl). The conversion from KCl to FLO is K_2O = 0.6317 x KCl.
- The average composited total thickness of the potash mineralization amenable to solution mining is 102.2 ft. (31.2 m). This is applied to all mineral resource estimates.
- A tonnage factor of 15.6 ft3/ton is used to estimate the tonnage (2,054 kilograms per cubic meter).
- No grade capping or restricting of grade outliers is applied.
- No cut-off grade or value based on commodity price is used to estimate mineral resources. This is because the solution mining method used at Belle Plaine is not grade selective. At no point in the cavern development and mining process can a decision be made to mine or not mine the potash mineralization that is in contact with the mining solution. There is no control on what potash grade the mining solution dissolves to make a concentrate that is pumped to surface from the mining caverns for processing.

11.3 Estimation Methodology[7]

The methodology for estimating mineral resources at Belle Plaine is described as follows:

1. The spatial location, continuity and thickness of the potash mineralization is interpreted in plan view using AutoCAD 2020 software. This interpretation is based on drill holes. 3D seismic geophysical surveys and regional geological studies.

The 3D seismic survey interpretation serves as the geologic model and provides the highest resolution detail of the potash horizon. The seismic surveys provide information regarding the possible location of structural disturbances and geologic anomalies (dissolution or non-deposition) of the potash horizons. Mosaic has thoroughly compared survey results and predicted interpretations to actual locations (drill hole intersections) and characteristics of the potash horizons at the conventional underground mining operations. The understanding gained from comparing predicted to actual geological conditions allows for increased confidence in areas covered by 3D seismic surveys across all Mosaic potash properties.

2. The property map is updated as follows:
   - To show the current mineral rights status.

- To show the limits of the current mining footprint. New drilled intersections and caverns are combined to indicate the active Mining Area.
- To outline areas such as geological anomalies, town sites and other known surface features that are excluded from the mineral resource estimation process.

3. Areas that contain mineral resources arc further defined by applying a minimum spatial area requirement for cluster development (mining footprint). Areas large enough for a cluster design to be applied are considered as areas that support a mineral resource estimate.

4. An average mineralization thickness and density are applied to the mineral resource areas to estimate the mineral resource tonnage.

5. The mineral resource is categorized as measured, indicated or inferred based on the amount and quality of the supporting data.

6. An average grade is estimated and applied to the mineral resource tonnages.

11.4 Exploratory Data Analysis

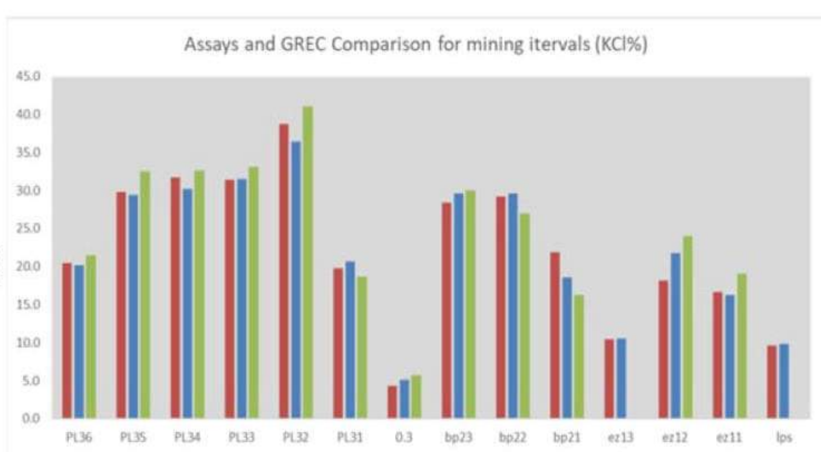
At the Belle Plaine Potash Facility, 756 production wells have been drilled in the last 60 years. This data serves to verily the quality and continuity of the deposit. The mineralization in most early wells was cored and the potash bearing zones were analyzed internally. These wells were also logged with a calibrated gamma ray tool. A Gamma Ray Equivalent Calculation (GREC) was developed to quantitatively relate potash grade to the gamma ray readings. All current production wells are evaluated using these gamma ray logging techniques and have this grade calculation applied.

In 2020. a two-hole core logging program was completed to confirm the agreement between grades from Mosaic's current well logging process with the physical assayed results. The holes were drilled in a strategic location supporting future mineral resource estimates. The variation between assay values and gamma interpretation for each potash member is listed in Table 11-1 and by individual potash bed within these members in Figure 11-1. This information graphically displays the agreement between the different methods of grade interpretation used at Belle Plaine in determining the average grade of the mineralization.

The closest agreement is shown in the Belle Plaine Member with <1% variation from assay to GREC. The Esterhazy Member is interpreted with the widest variability with 2.3% difference between calculation methods. The overall difference between the assay results and the GREC interpretation for potash mineralization is a ~1.5%. The QPs are confident in the interpretation of grade using the Mosaic GREC for the mineralized zone and deem it sufficient for use in the mineral resource estimation process.

Table 11-1: Assays and RESPEC/Mosaic GREC Comparison for Hole 41092 Mining Intervals by Member

Mining Intervals RESPEC GREC					Assays		Assays/GREC Difference (KC1%)	
Unit	**Thickness (ft.)**	**Thickness (tn)**	**Total KiO%**	**Total KCI%**	**Total K_2O%**	**Total KCI%**	**RESPEC GREC**	**Mosaic GREC**
Patience Lake	**69.5**	21.1	16.2	25.6	16.4	26.0	**-0.4**	**1.3**
Belle Plaine (Upper)	**18.5**	**5.6**	18.7	29.6	18.2	28.8	**0.8**	**-0.1**
Patience Lake and Belle Plaine (Combined)	**88.0**	26.8	16.7	26.5	16.8	26.6	**-0.1**	**1.0**
Esterhazy Member (Bed 12)	**13.5**	4.1	13.7	21.7	11.5	18.2	**3.5**	**5.8**
Total Mining Zone	**102.5**	**31.2**	**16.2**	**25.6**	**15.9**	**25.2**	**0.4**	**1.9**



Indrvidual Bed Interpretations-Assay vs. Gamma

Figure 11-1: Assays and RESPEC/Mosaic GREC Comparison for Hole 41092 Mining Intervals by Bed (RESPEC, 2020)

11.5 Validation

The workflow to generate the mineral resource estimate includes multiple checkpoints to ensure the validity of the work. Key validations include:

- An annual potash mineral resource and mineral reserve review forum is held internally at Mosaic for the QPs from each site to align and review the potash mineral resources and reserves estimates and processes. This includes a review of proposed workflow, source data inputs and industry best-practices.
- The Belle Plaine QP reviews the lease area with the Land and Mineral team to ensure alignment on property limits, mineral control and ownership.

- Ensuring the active Mining Area limits are accurate, there is a review completed of all producing and sterilized areas for inclusion in the updated property map.
- A review to ensure the mineral resource estimates align with the established definitions for each mineral resource category.
- Peer review of potash mineral resources estimates by an alternate potash site QP.
- A review of the mineral resource estimates by the Manager, Lands and Minerals, Senior Mine Engineering Manager and the site Senior Management.

11.6 Confidence Classification of Mineral Resource Estimate

The classification of mineral resource is fully defined in SEC Regulation S-K, Subpart 1300. Mosaic follows these definitions when categories to their mineral resource estimates. The SEC Regulation S-K, Subpart 1300 definitions of measure, indicated and inferred mineral resources arc as follows.

Measured Mineral Resource

A measured mineral resource is that part of a mineral resource for which quantity and grade or quality arc estimated based on conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

At Belle Plaine, a measured mineral resource is defined as mineralization that is confirmed by a 2D or 3D seismic interpretation and is within A mile (0.8 km) of a drill hole or active mining.

Indicated Mineral Resource

An Indicated mineral resource is that part of a mineral resource for which quantity and grade or quality arc estimated based on adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

At Belle Plaine, an indicated mineral resource is defined as mineralization that is confirmed by a 2D or 3D seismic interpretation or is within 1 mile (1.6 km) of a drill hole or active mining.

Inferred Mineral Resource

An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated based on limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve.

At Belle Plaine, an inferred mineral resource is defined as mineralization that has been investigated through regional geological study with limited exploration drilling and no 3D seismic interpretation. The inferred mineral resources will require additional exploration drilling and seismic interpretation prior to possible future mining.

11.7 Reasonable Prospects of Economic Extraction

Regulation S-K, Subpart 1300 requires that an evaluation be conducted to support the prospect of eventual economic extraction for measured and indicated mineral resources. The mineral resources at Belle Plaine that are classified as inferred arc not subject to this requirement.

11.8 Mineral Resource Statement

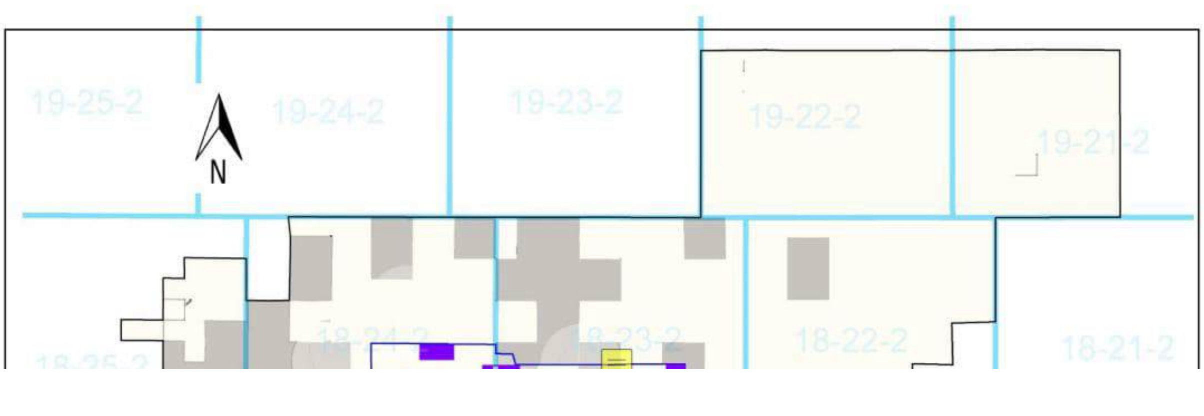
The mineral resource estimates for the Belle Plaine Potash Facility are listed in Table 11-2. The inferred mineral resources are reported exclusive of the mineral reserves. Figure 11-2 shows the distribution of the mineral resources and mineral reserves on the Belle Plaine property'.

Table 11-2: 2024 Mineral Resources

	Inferred Mineral Resources			
Location	**Tons (M)**	**Tonnes (M)**	**Grade %KCI**	**Grade %K_2O**
Belle Plaine	5.124	4.647	31	19

Notes to accompany mineral resources table:

1. Mineral resource estimates were prepared by QP M. Tochor, a Mosaic employee.
2. Mineral resources have an effective date of December 31. 2024.
3. Mineral resources arc reported exclusive of those mineral resources that have been converted to mineral reserves.
4. Mineral resources are not mineral reserves and do not meet the threshold for mineral reserve modifying factors, such as estimated economic viability, that would allow for conversion to mineral reserves. There is no certainty that any part of the mineral resources estimated will be converted into mineral reserves.
5. Mineral resources assume solution mining.
6. Mineral resources amenable to a solution mining method are contained within a conceptual cluster and cavern design using the same technical parameters as used for mineral reserves.
7. No cut-off grade is used to estimate mineral resources. This is because the solution mining method used at Belle Plaine is not selective. At no point in the cavern development and mining process can a decision be made to mine or not mine the potash mineralization that is in contact with the mining solution. There is no control on what potash grade the mining solution dissolves to make a concentrate that is pumped to surface from the mining caverns for processing (Section 11.2).
8. Tonnage is in US Customary and metric units and are rounded to the nearest million tonnes.
9. Rounding as required by reporting guidelines may result in apparent summation differences.



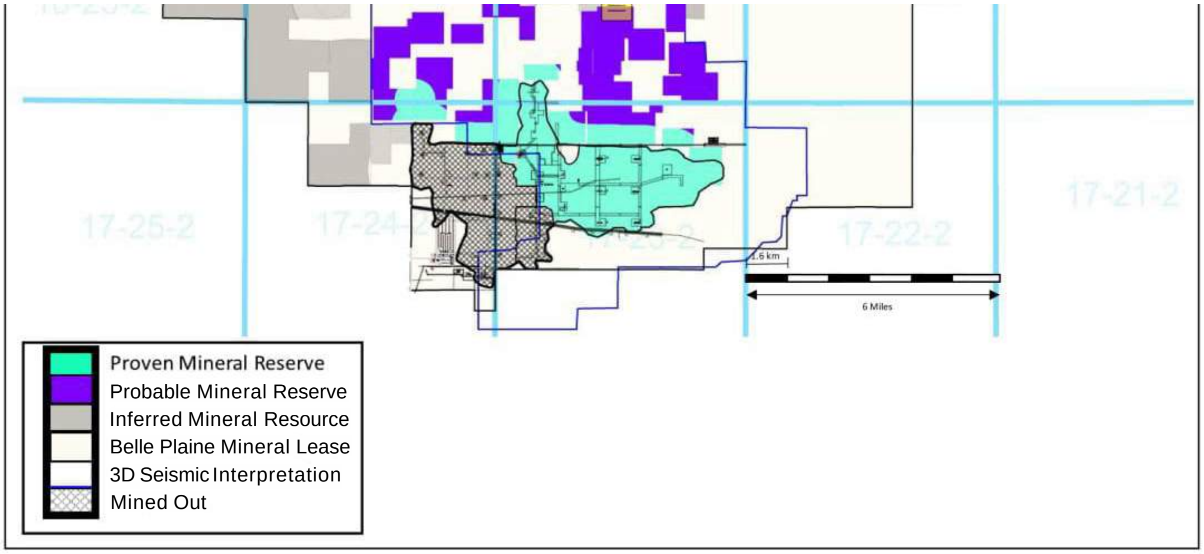


Figure 11-2: Location and Distribution of Mineral Resources and Mineral Reserves

11.9 Uncertainties (Factors) That May Affect the Mineral Resource Estimate

The reader is cautioned that a mineral resource is an estimate and not a precise and completely accurate calculation, that is based on the interpretation of limited sampling results. Actual mineralization can be more or less than estimated, depending upon geological conditions.

The mineral resource statement includes inferred mineral resources that have the lowest level of geological confidence and there is a reasonable expectation that most of inferred mineral resources could be upgraded to indicated or measured mineral resources with continued exploration.

The following uncertainties at Belle Plaine could impact the mineral resource estimates.

- Local grade, density and thickness variations.
- The potash grade may not remain within historical averages for all subsequent clusters that arc developed.
- Local variations of the Salt Back thickness across the Belle Plaine property.
- Local uncertainty related to density estimate. There may be variation from the global estimate being used in the grade and tonnage estimates.
- The internal GREC (Gamma Ray Equivalent Calculation) applied at Mosaic. Audits are completed to verify the process relied upon at Belle Plaine.
- Surface access limitations could result in revision of the planned mining activity.
- Mineral acquisitions that could increase the mineral resources for the Belle Plaine Potash Facility.
- Cavern planning is based on current 3D seismic interpretation. The average cavern layout is planned to include a minimum of 16.5 caverns per cluster. The sequence of drilling can result in changes to the mineral resource estimates.

12.0 Mineral Reserve Estimates

12.1 Introduction

The Belle Plaine mineral reserves arc reported as in-situ mineralization accounting for all applicable modifying factors. Mineral reserves meet all the mining criteria required at Belle Plaine including, but not limited to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

12.2 Key Assumptions

The following outlines the key assumptions used for the estimation of mineral reserves al Belle Plaine.

- The mineral resources are assumed to be laterally continuous and consistent based on locally available geological information collected from production records. Local seismic studies are used to plan the details for solution mining.
- No dilution is applied converting the grade of the mineral resources to mineral reserves.
- Mine planning is based on arrangement and planning of solution mining targets called caverns. A collection of 16.5 caverns is the average number of production caverns planned per cluster with the minimum mine planning size being !6 cluster.
- The average mineral reserves per cavern is 1.63M tons (1.48M tonnes). This equates to 27M tons (24M tonnes) per cluster. This correlates to an average mining recovery of approximately 21.5%,
- No cut-off grade is used to estimate mineral reserves. The solution mining method used at Belle Plaine is not selective. At no point in the cavern development and mining process can a decision be made to mine or not mine the potash mineralization that is in contact with the mining solution. There is no control on what potash grade the mining solution dissolves to make a concentrate that is pumped to surface from the mining caverns for processing.

12.3 Estimation Methodology

The following outlines the methodology used for the estimation of the Belle Plaine mineral reserves and development of a mining plan to support the mineral reserve estimates.

- The current 3D seismic interpretation and all drilling information is used to generate an interpreted mining surface for cavern planning. The lateral continuity of the ore quality has been proven by production drilling.
- A standard cluster size and shape is applied to the available mineral resource area on the AutoCAD plan map. This standard size accurately represents the production limit for current mining practice and includes an average of 16.5 caverns per cluster within the limits. A minimum !6 cluster size is assumed for mineral reserve estimation.
- Production drilling is planned using elevations interpreted from seismic modeling to delineate appropriate mining targets within the cluster to maximize the number of caverns available for solution mining.
- The mineral reserve tonnage is estimated for each cluster based on the number of caverns planned and are categorized as proven mineral reserves or probable mineral reserves based the mineral resource category.
- For mine planning and scheduling purposes, cluster tonnages and grades are converted to mineable KCI tons based on the average deposit grade of 30.6% KCI (19.3% K?O).

12.4 Mineral Reserve Statement

The mineral reserves estimate for the Belle Plaine Potash Facility are listed in Table 12-1. Figure 12-1 shows the distribution of the mineral resources and mineral reserves on the Belle Plaine property. Mineral reserves are sub-divided into two confidence categories in Regulation S-K 1300, proven and probable.

Proven Mineral Reserve

A Proven mineral reserve is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource. Regulation S-K 1300 provides additional guidance that to be classified as a proven mineral reserve, the qualified person must have a high degree of confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality.

At Belle Plaine, a proven mineral reserve is described as the mineable portion of a measured mineral resource.

Probable Mineral Reserve

A probable mineral reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource. Regulation S-K 1300 provides additional guidance that to be classified as a probable mineral reserve, the qualified person's confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality is lower than what is sufficient for a classification as a proven mineral reserve, but is still sufficient to demonstrate that, at the time of reporting, extraction of the mineral reserve is economically viable under reasonable investment and market assumptions. The lower level of confidence is due to higher geologic uncertainty when the qualified person converts an indicated mineral resource to a probable reserve or higher risk in the results of the application of modifying factors at the time when the qualified person converts a measured mineral resource to a probable mineral reserve.

At Belle Plaine, a probable mineral reserve is described as the mineable portion of an indicated mineral resource.

Table 12-1: 2024 Mineral Reserves

Category	Tons (M)	Tonnes (M)	Grade %KCI	Grade %K_2O	Mining Recovery %	% Dilution
Proven	293.1	265.9	30.6	19.3	21.5%	0%
Probable	419.2	380.3	30.6	19.3	21.5%	0%
Proven + Probable	712.3	646.1	30.6	19.3	21.5%	0%

Notes to accompany mineral reserves table:

1. Mineral reserve estimates were prepared by QP F. Hainstock, a Mosaic employee.
2. Mineral reserves have an effective date of December 31, 2024.
3. Mineral reserves are based on measured and indicated mineral resources only.
4. All mineral reserves are mined by a solution mining method.
5. No cut-off grade is used to estimate mineral reserves. This is because the solution mining method used at Belle Plaine is not selective. At no point in the cavern development and mining process can a decision be made to mine or not mine the potash mineralization that is in contact with the mining solution. There is no control on what potash grade the mining solution dissolves to make a concentrate that is pumped to surface from the mining caverns for processing (Section 11.2).
6. Mine designs based on a solution mining method and design criteria are used to constrain measured and indicated mineral resources within mineable shapes.
7. Only after a positive economic test and inclusion in the I.OM plan is the mineral reserve estimate included as a mineral reserve.
8. Tonnages are in US Customary and metric units and are rounded to the nearest million tonnes. The grades are rounded to one decimal place.
9. Rounding as required by reporting guidelines may result in apparent summation differences.
10. The following KCI commodity prices were used to assess economic viability for the mineral reserves, but were not used for cut-off purposes, 2025-5211/tonne, 2026-5263/tonne, 2027-5281/tonne, 2028-5256/tonne, 2029-5261/tonne and for the LOM S3l4/tonne.
11. A US5/C5 exchange rate of 1.32 was used to assess economic viability for the mineral reserves, but were not used for cut-off" purposes.

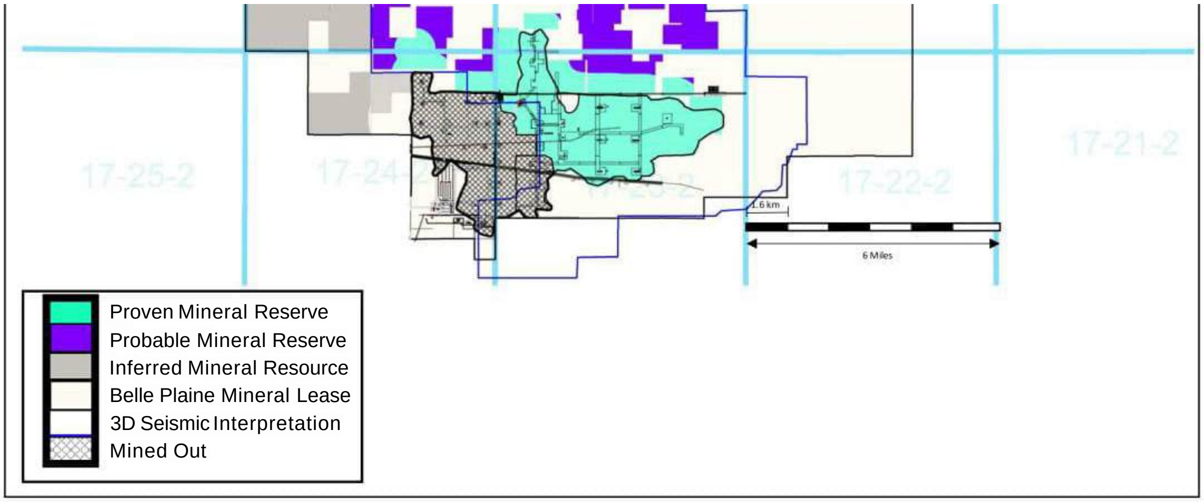


Figure 12-1: Location and Distribution of Mineral Resources and Mineral Reserves

12.5 Uncertainties (Factors) That May Affect the Mineral Reserve Estimate

The reader is cautioned that a mineral reserve is an estimate only. It is based on applying modifying factors to the resources determined to be measured and indicated. Actual mineralization can be more or less than estimated depending upon actual geological conditions.

The following outlines uncertainties that exist at Belle Plaine that could impact the mineral reserve estimates.

- The potash grade may not remain within historical averages for all subsequent clusters that are developed.
- There is some uncertainty about the local density estimates and variance. There may be variation from the global estimate being used in the estimates.
- The shape of the mineral reserve boundary may change as additional properties are acquired, and as additional data is added. Estimates will vary as drilling is added and as additional properties are acquired.
- Production performance is described by an average performance factor. A particular part of the Mining Area may be slightly higher or lower from the designed production expectations.
- Surface access limitations could result in revision of the planned mining activity.
- Extension of 3D seismic interpretation can result in the conversion of mineral resources to mineral reserves by increasing confidence in the geological interpretation.
- There arc potential mineral acquisitions that could increase the mineral reserves for the Belle Plaine Potash Facility.
- Cavern planning is based on current 3D seismic interpretation. The average cavern layout is planned to include a minimum of 16.5 caverns per cluster. The sequence of drilling can result in changes to the mineral reserve estimates.

13.0 Mining Methods

13.1 Introduction

The solution mining method at the Belle Plaine Potash Facility accesses three different potash members: the Esterhazy, Belle Plaine and Patience Lake Members.

The Esterhazy Member makes up the "Lower Mining Zone" and is mined with injection water during the cavern development phase. The Belle Plaine and Patience Lake Members are considered the "Upper Mining Zones." The Belle Plaine Member is mined with injection water during the cavern development phase and the Patience Lake Member is mined during the "Production phase" of the cavern lifecycle using a hot, salt-saturated "recycle brine."

13.2 Solution Mining Process

Solution mining involves directionally drilling boreholes to the base of the potash beds in the Prairie Evaporite Formation. These boreholes are used to transport fluid that dissolves halite (sodium chloride) and sylvite (potassium chloride) within the evaporite. The brine is returned to surface and transported to the Belle Plaine Processing Plant via buried pipelines for processing.

The solution mining process and the cavern life cycle at Belle Plaine is illustrated in Figure 13-1. The total life cycle period for mining of a solution cavern is approximately 25 years. Cavern development takes up to five years to achieve, primary mining lasts for six years, and secondary mining lasts 14 years. Following secondary mining, potassium chloride (KC1) recovery is exhausted, and the cavern will be plugged and decommissioned.

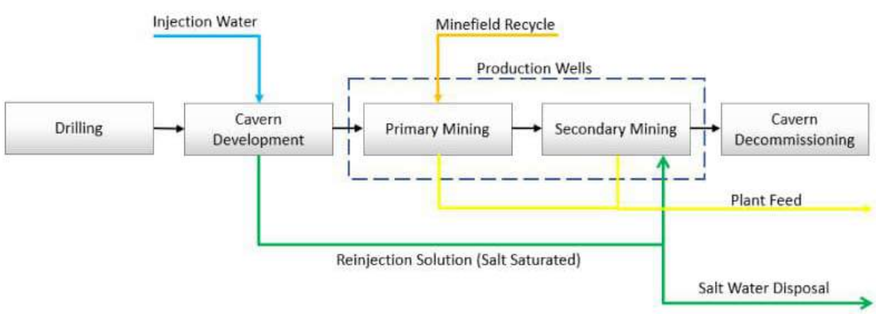


Figure 13-1: Mining Process and Cavern Life Cycle

Drilling

The solution mining process at Belle Plaine begins by drilling a pair of boreholes 550 to 600 ft. (168 to 183 m.) below surface to install a surface casing that provides flow isolation and groundwater protection. The boreholes are then directionally drilled to their downhole location at the base of the Esterhazy Member and are spaced to optimize mineral extraction.

Production casing is cemented into each borehole to isolate the various geological formations from each other and from the cavern. The cementing also serves to isolate the cavern from the porous overlying Dawson Bay Formation that ensures pressure integrity for all mining operations. The logging group will produce an Original Cased Hole Log (OCHL) as a reference log used for all future mining operations and a Cement Bond Log (CBL), that evaluates the integrity of the production cementing operation, before turning the well over so cavern development can begin.

Cavern Development

During the cavern development stages, a fluid that is less dense than the brine in the cavern is injected to control the vertical growth of the mining face. This forces the cavern to grow outwards along the desired mining horizon.

Cavern development begins by creating sumps surrounding each of the two wells below the target potash horizon in the underlying halite. Once sump development is complete, mining of the Esterhazy Member begins. The caverns are operated as single boreholes by injecting water through the annulus into the targeted mining zone and returning the tubing until the caverns are large enough to connect. Once connected, one borehole is used as the injection side of the cavern and the other borehole functions as the return. The feed and return sides of the cavern are alternated until mining of the Esterhazy Member is complete.

The thick interburden between the Esterhazy Member and the bottom of the Belle Plaine Member is characterized as halite interbedded with a thin marker bed (the White Bear Marker Bed) that contains low-grade potash. The White Bear Marker Bed is generally too thin and low grade to be economically mined.

Connection of the two boreholes is re-established at the base of the Belle Plaine Member. The Belle Plaine Member is mined similarly to the Esterhazy Member as previously described.

Once cavern development is complete, the cavern will be prepared for production mining. Cavern development takes approximately' five years.

Primary[7] Production Mining

Upon completion of cavern development, the well is moved into production. The feed fluid is changed from injection water to “recycle” which is a hot, salt-saturated brine. The salt-saturated feed brine allows for selective dissolution of KC1 and results in a high concentration return to the Refinery. The cavern is pressure light (no interaction with the porous Dawson Bay Formation above) so the recycle feed that is pumped from the Refinery enters and then returns from the cavern without the requirement of any other pumping mechanism. Primary production caverns are continuously fed and returned without “resting” the cavern. The primary mining phase lasts approximately six years.

Secondary Production Mining

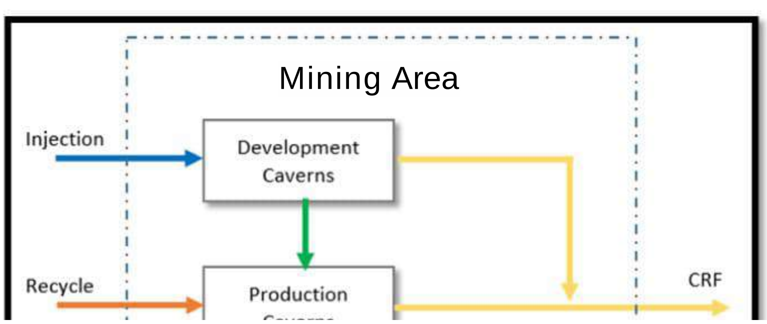
Once the majority of the Patience Lake Member has been dissolved, the cavern is deemed to be in its secondary mining phase of its lifecycle. Typically, this phase will coincide with the cavern connecting to the porous Dawson Bay Formation that causes the cavern to lose its pressure integrity. Once a cavern is no longer pressure tight, an electric submersible pump is installed on the return side of the cavern and the feed stream is changed from recycle to "development brine.” Development brine is the fluid that returns out of an injection fed cavern in development before being reinjected into a secondary cavern. Caverns in secondary mining are mostly mining the KC1 from the cavern walls and as such are typically mined intermittently until the KC1 grade appreciates to a high enough concentration that is suitable to send to the Refinery. The secondary mining phase will last approximately 14 years.

Cavern Decommissioning

After a cavern is no longer productive, or it is no longer economical to perform a workover to bring the cavern back online, it is plugged and decommissioned in accordance with applicable regulations. The typical decommissioning procedure involves placing a bridge plug or retainer in the thick anhydrite unit above the Davidson Evaporate of the Upper Souris River Formation (Harris/Hatfield is preferential) and then filling the casing to surface with cement. This process provides cement coverage over all geological units to ensure that adequate stratigraphic isolation exists to prevent brine migration into freshwater formations and to isolate the cavern from surface.

Mining Process Fluid Flows

There are two main fluid flow inputs into the Mining Area: injection water and recycle (Figure #13-2). Both feed streams ultimately contribute to the brine streams (Combined Return Flow[7] or CRF) that are sent to the Cooling Ponds and Refinery.



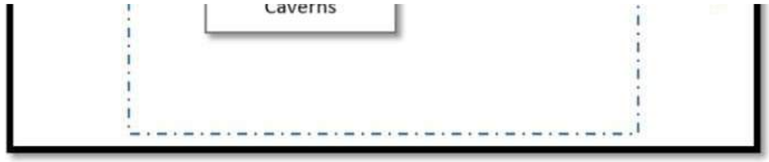


Figure 13-2: Mining Area Flow Inputs and Outputs

Injection water is the primary source of fresh flow into the Belle Plaine Mining Area and is used as the feed into developing caverns for dissolution of K.C1 and NaCl. Injection water is also used as dilution for cavern fluid returns to prevent the KC1 from crystallizing during transport to the Refinery. The origin of the fresh water is a local lake called Buffalo Pound. The water from Buffalo Pound is pumped to storage tanks in the Refinery. The water is combined with recovered low concentration brines and heat from various sources in the Refinery, before being pumped to the Mining Area via the Powerhouse and Process Water Building. The injection water is low in KC1 and NaCl, so it is suitable for dissolving both minerals. The flow requirements for this stream are primarily dictated by the number of caverns being developed at a given time in the Mining Area.

Caverns under development generally return a low saturated brine (typically called development brine) that is used as a feed for caverns in the secondary production phase of their life cycle. These caverns are usually connected to the Dawson Bay Formation and utilize a submersible pump to return fluid to the Refinery. Any excess brine originating from development that is not required as a cavern feed (if the sum of injection water and recycle is greater than the requirement for feed into the Refinery and cooling ponds) is sent to the tailing management area for disposal.

The recycle brine is a hot, salt-saturated brine that is used as a feed for production caverns during their primary production mining phase. The source of the brine is overflow from the Belle Plaine cooling ponds. The cooling pond overflow brine is sent through the Refinery reheat system to pick up heat, then sent to a surge tank where NaCl solids are added to the brine before being pumped back to the Mining Area. Since the recycle fluid is at or near NaCl saturation and lower in KC1 saturation, it allows for selective dissolution of KC1 in the cavern and a deposition of NaCl into the cavern as the K.C1 is mined. The high NaCl concentration of recycle fluid minimizes the mining of the salt bed between the Patience Lake Member and the Dawson Bay Formation.

Combined Return Flow (CRF) is an NaCl saturated and KC1 rich brine that is a collection of the return brines out of the production caverns. This fluid is the raw feed sent from the Mining Area to the Refinery for further processing.

13.2.1 Geotechnical Considerations

Similar to conventional underground mines, the control of stresses and subsequent rock deformation are paramount for successful recovery of potash using the solution mining method. These key factors directly influence cavern stability and the rates of surface subsidence.

Since cavern development and production occurs in multiple stages, the magnitude and distribution of stresses will differ throughout the process. The in-situ vertical stresses prior to cavern development are a function of depth. As mining commences, these gradually migrate to the pillar areas found between caverns and increase in magnitude as caverns are enlarged. Excessive levels of vertical stress in these pillars will impact their stability and can eventually result in development issues or even pillar failure. As pillars shorten and widen in response to the added vertical loads, increased horizontal stresses within the cavern roof may develop and result in some displacement along natural planes of weakness such as bedding contacts or clay seams. Other stress derivatives, such as effective stress and damage potential are also considered as these have been shown to impact rock behavior. To minimize the risks associated with ground stresses, mine planning must not only consider cavern design, but also the material properties of the ore and surrounding rock formations. At Belle Plaine, this is accomplished through the geomechanical testing of core and the use of numerical modeling to optimize cavern design and development criteria.

Subsidence, or the deformation of overlying strata, is another important consideration. Subsidence results from the gradual closure of cavities as adjacent potash and salt units creep into the mined openings. Aside from vertical surface displacement, other modes of ground movement can occur including extensional and compressional strains as well as tilt. When excessive, these can compromise rock strata above the caverns, result in damage to structures such a buildings or pipelines, and even change surface drainage patterns. As with cavern stresses, subsidence is controlled by cavern design and layout. Similarly, numerical models are used to analyze expected subsidence in response to mining and can be compared against data acquired during surface subsidence surveys for reconciliation and model improvement.

13.2.2 Hydrogeological Considerations

The Belle Plaine Potash Facility relies on third-party contractors to develop and execute the drilling program for each borehole. The mud program that is specifically designed for the Belle Plaine production drilling is closely followed to minimize potential loss and in-flow zones. Loss Circulation Material additives arc run to help control minor losses. If at any point a loss zone become unmanageable, the hole will be displaced to straight brine (to avoid pumping the mud system directly into formation) and drilling will continue without returns while monitoring rig and hole conditions closely. The loss zone would then be isolated using a hydraulic stage tool and two-stage cement job after casing and logging operations have been completed. In an underbalanced scenario (flow from the formation entering the borehole being drilled), the crew will work to regain control typically by use of a heavy weight fluid to "kill" the well. The contractors w'ork to avoid scenarios by balancing fluid properties to expected formation pressures during drilling activities.

Both the surface and production casings arc cemented into each borehole to isolate the various geological formations trom eacn other ana trom tne cavern. 1ne cementing also serves to isolate me cavern trom me permeable overlying Dawson Bay Formation. This is completed and reported in accordance with applicable regulations.

At some point in the lifecycle of each cavern, it will lose its pressure integrity when it connects w'ith the Daw'son Bay Formation. This occasionally occurs earlier in its lifecycle (prior to the sccondary/wall mining phase) and is generally due to the salt bedding that exists between the Patience Lake Member and the Dawson Day Formation being much thinner than typical. Early connection to the Dawson Bay Formation may result in slower recovery of KCI, or lower KCI concentration brine returns, due to cavern dissolution mechanics. The return brine is brought to surface utilizing an electric submersible pump as is the case with any cavern that has lost pressure integrity due to interaction with the Dawson Bay Formation.

At the end of a cavern's lifecycle, it will be plugged and decommissioned. The typical decommissioning procedure involves placing a bridge plug or retainer in the thick anhydrite member above the Davidson Evaporate of the Upper Souris River Formation (Ilarris/IIatfield is preferential) and then filling the casing to surface with cement. This process provides cement coverage over all formations to ensure adequate stratigraphic isolation exists to prevent brine migration into freshwater formations and to isolate the cavern from surface.

13.3 Mine Design and Operations

13.3.1 Production Plan/Life of Mine Plan

The 2024 Belle Plaine Life of Mine (LOM) plan is tabulated in Table 13-1 and has a total mine life of 60 years, ending in 2084.

The Mining Area capability is scheduled to ramp up to support a finished tonnage projection of 3.30M tons (3.OOM tonnes) per year and will do so until drilling is completed in the year 2066 at which point there is a ramp down in production until 2084.

The Mining Area KCI production capability in the LOM plan is estimated as net mined KCI tons multiplied by total site KCI processing recovery. The difference between Mining Area KCI production capability and total shipped tons is the change in cooling pond inventory and warehouse inventory that occurs between production years. In years where the Mining Area KCI production capability is higher than shipped tons, the cooling pond and/or warehouse inventories will rise which provides surge capacity for future years. This means that any surplus of unharvested inventory in the cooling ponds can be produced into finished product in subsequent years through the refinery complex, provided the Refinery has capacity to do so.

Figure 13-3 is a graphical presentation of the Mining Area KCI production and the Total KCI tons shipped by year from Table 13-1.

After drilling has been completed in the Year 2066, the ramp down period will begin. At this point, it is assumed that the Mining Area will have an inventory of 225 caverns (25-year cavern life multiplied by an average of 9 caverns drilled per year) in the following stages of their lifecycle: 45 in development, 54 in primary production mining and 126 in secondary production mining. Progression of cavern lifecycle has been maintained in this plan along with the cavern abandonment rate. Mining area capability will decline as cavern inventory declines. The overall system hydraulic balance will be maintained throughout the ramp down period. The Refinery will be switched over to a single line evaporation operation in the years 2070 to 2084 to accommodate declining flow capability.

The final year of production at Belle Plaine has been projected to occur in 2084 and was determined by two main factors. First, flow from the Mining Area in successive years was insufficient to support the Belle Plaine current single line evaporation mode (Belle Plaine runs what is known as "partial evaporation", a switch to "total evaporation" w'as not explored in this plan). Second, it was assumed that an operation the size of Belle Plaine is not economical below a KCI production rate of 1.0M tons (907,000 tonnes) per year.

At the conclusion of the LOM plan, 14.07M tons (12.79M tonnes) of KCI are left unrecoverable in the caverns. This has been removed from the 2024 mineral reserve estimate disclosed in this report.

The LOM plan planning exercise was completed using a mass and energy balance software package that has been programmed to simulate the Belle Plaine process.

Table 13-1: Life of Mine Production Plan

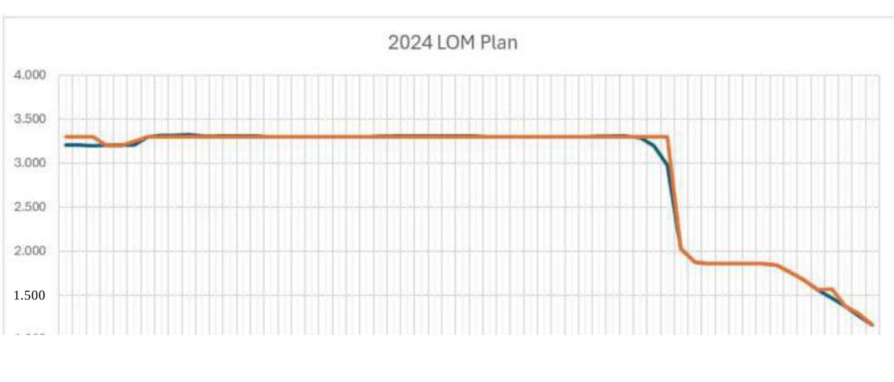
Year	Mineral Reserves Mined M tons	Net Mined KCI M tons	Mining Area KCI Production Capability M tons	Total Shipped Tons @ 98 weight %KCl Purity M tons	Change in Cooling Pond KCI Inventory M tons	Change in Warehouse KCI Inventory M tons	Total Site KCI Processing Recovery %	Mineral Reserve Grade %KCI
2025	13.17	4.030	3.205	3.300	-0.095	0.000	79.5	30.6%
2026	13.10	4.010	3.205	3.300	-0.095	0.000	79.9	30.6%
2027	12.86	3.935	3.198	3.300	-0.102	0.000	81.3	30.6%
2028	12.82	3.924	3.208	3.200	0.008	0.000	81.8	30.6%
2029	12.84	3.929	3.208	3.200	0.008	0.000	81.7	30.6%
2030	12.93	3.958	3.207	3.250	-0.043	0.000	81.0	30.6%
2031	13.60	4.163	3.302	3.300	0.002	0.000	79.3	30.6%
2032	13.73	4.201	3.315	3.300	0.015	0.000	78.9	30.6%
2033	13.74	4.205	3.317	3.300	0.017	0.000	78.9	30.6%
2034	13.85	4.237	3.326	3.300	0.026	0.000	78.5	30.6%
2035	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2036	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2037	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2038	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2039	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2040	13.76	4.209	3.301	3.300	0.001	0.000	78.4	30.6%
2041	13.76	4.209	3.301	3.300	0.001	0.000	78.4	30.6%
2042	13.76	4.209	3.301	3.300	0.001	0.000	78.4	30.6%
2043	13.76	4.209	3.301	3.300	0.001	0.000	78.4	30.6%
2044	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2045	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2046	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2047	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2048	13.77	4.213	3.303	3.300	0.004	0.000	78.4	30.6%
2049	13.77	4.213	3.303	3.300	0.004	0.000	78.4	30.6%
2050	13.77	4.213	3.303	3.300	0.004	0.000	78.4	30.6%
2051	13.77	4.213	3.303	3.300	0.004	0.000	78.4	30.6%

Year	Mineral Reserves Mined M tons	Net Mined KCI M tons	Mining Area KCI Production Capability M tons	Total Shipped Tons _ 98 weight %KC1 Purity M tons	Change in Cooling Pond KCI Inventory M tons	Change in Warehouse KCI Inventory M tons	Total Site KCI Processing Recovery %	Mineral Reserve Grade %KCI
2052	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2053	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2054	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2055	13.71	4.195	3.303	3.300	0.003	0.000	78.7	30.6%
2056	13.76	4.211	3.302	3.300	0.003	0.000	78.4	30.6%
2057	13.76	4.211	3.302	3.300	0.003	0.000	78.4	30.6%
2058	13.76	4.211	3.302	3.300	0.003	0.000	78.4	30.6%
2059	13.76	4.211	3.302	3.300	0.003	0.000	78.4	30.6%
2060	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2061	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2062	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2063	13.75	4.207	3.300	3.300	0.000	0.000	78.4	30.6%
2064	14.30	4.376	3.392	3.300	0.092	0.000	77.5	30.6%
2065	14.30	4.376	3.392	3.300	0.092	0.000	77.5	30.6%
2066	13.89	4.251	3.363	3.300	0.063	0.000	79.1	30.6%
2067	13.47	4.122	3.292	3.300	-0.008	0.000	79.9	30.6%
2068	12.16	3.721	3.195	3.300	-0.105	0.000	85.9	30.6%
2069	9.89	3.026	2.980	3.300	-0.320	0.000	98.5	30.6%
2070	7.05	2.156	2.031	2.031	0.000	0.000	94.2	30.6%

2071	6.37	1.950	1.872	1.872	0.000	0.000	96.0	30.6%
2072	6.37	1.949	1.856	1.856	0.000	0.000	95.3	30.6%
2073	6.37	1.949	1.856	1.856	0.000	0.000	95.3	30.6%
2074	6.37	1.949	1.856	1.856	0.000	0.000	95.3	30.6%
2075	6.37	1.949	1.856	1.856	0.000	0.000	95.3	30.6%
2076	6.37	1.949	1.856	1.856	0.000	0.000	95.3	30.6%
2077	6.30	1.929	1.845	1.845	0.000	0.000	95.6	30.6%
2078	6.02	1.841	1.758	1.758	0.000	0.000	95.5	30.6%

Year	Mineral Reserves Mined M tons	Net Mined KCI M tons	Mining Area KCI Production Capability M tons	Total Shipped Tons @ 98 weight %KCI Purity M tons	Change in Cooling Pond KCI Inventory M tons	Change in Warehouse KCI Inventory M tons	Total Site KCI Processing Recovery %	Mineral Reserve Grade %KCI
2079	5.66	1.733	1.669	1.669	0.000	0.000	96.3	30.6%
2080	5.29	1.619	1.558	1.658	-0.100	0.000	96.2	30.6%
2081	5.04	1.544	1.473	1.573	-0.100	0.000	95.4	30.6%
2082	4.74	1.451	1.373	1.423	-0.050	0.000	94.6	30.6%
2083	4.57	1.398	1.267	1.292	-0.025	0.000	90.6	30.6%
2084	4.16	1.273	1.164	1.164	0.000	0.000	91.5	30.6%
Total LOM Plan	696.25’	213.050	172.907	173.665	-0.656	0.000	83.2	30.6

* *Equivalent to approximately 632 million tonnes.*



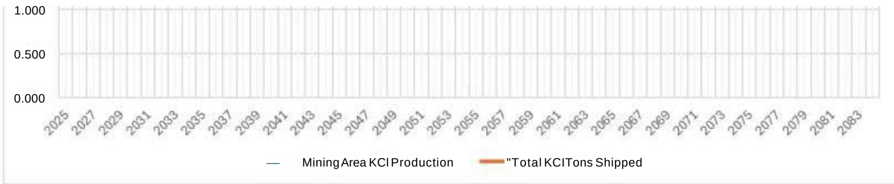


Figure 13-3: 2024 LOM Plan

13.3.2 Planning Assumptions/Design Criteria

The following outlines the planning assumptions incotporated into the Belle Plaine 2024 LOM plan.

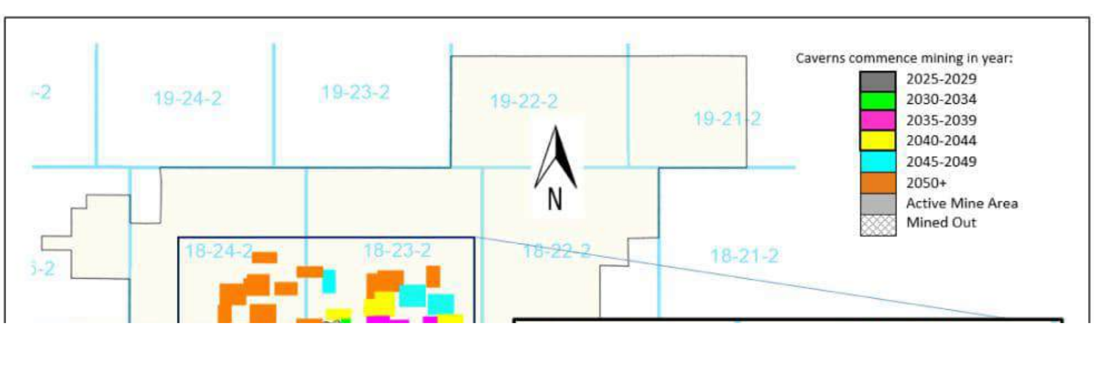
- For mine planning and scheduling purposes, the mineral reserves are converted to mineable KCl tons based on the average deposit grade.
- A cluster site (well site) layout is based on between 16 and 18 caverns (32 to 36 boreholes) being drilled and developed from a single pad. Directional drilling makes it possible to support up to 18 caverns from one cluster pad. The cluster site is generally split into an “A side” and a “B side”, each with eight to nine caverns. Typically, either an “A side” or “B side” is turned over to production each year. The cluster sites in the LOM plan will assume a 16.5 cavem/cluster average which is consistent with recent history. The mining footprint of a typical cluster site is approximately 1,200 by 1,400 m. Belle Plaine’s required drilling rate to sustain a production level of 3.3M finished tons/year (3.0M finished tonnes/year) is nine caverns drilled per year. Therefore, it will occasionally be necessary to drill two half clusters in a single year to maintain the nine caverns per year average requirement. These caverns will be drilled in such a timeframe that the Mining Area will never be in a deficit of caverns and injection water flow can be smoothed to match requirements.
- A cluster site consists of a cluster building, an oil separation pond, a brine pond, a rig pad with a sump that drains to the oil pond, and wellheads along the rig pad. The entire cluster site is surrounded by a berm, or dyke, to manage any environmental impacts and 100-year rainwater events.
- Potash ore grade will remain within historical averages for all subsequent clusters that are developed.
- The average time required to develop a cavern will not change from current averages.
- Production cavern performance will not change from historical averages.
- Notable inputs such as feed temperature and concentrations will remain consistent with recent historical averages.
- Caverns will continue to provide approximately 500,000 mined tons of KCl (453,000 tonnes) over the course of their life cycle as per historical averages. With an estimated processing recovery of 79% recovery from

mined net K.C1 tons to shipped tons, each cavern will provide approximately 395,000 net tons (358,000 net tonnes) of saleable KC1.

- An average of nine caverns (18 boreholes) will be drilled and turned over to operations personnel in November each year. The estimated sustaining drilling rate requires approximately 8.5 caverns to be drilled each year to match the finished production rate of 3.3M finished tons/year (3.0M finished tonnes/year). An estimated drilling rate of nine caverns per year are required to offset any unforeseen complications over the life of a cavern.
- Production splits between the Cooling Ponds and Refinery will stay consistent with current day projections.

13.3.3 Mining Sequence and Cluster Planning

The Belle Plaine mining sequence is presented in Figure 13-4. The planned mining covers the extent of the current mineral reserves. Uncontrolled mineralization is not included in the LOM plan; however, they would be added in future years as Belle Plaine acquires them.



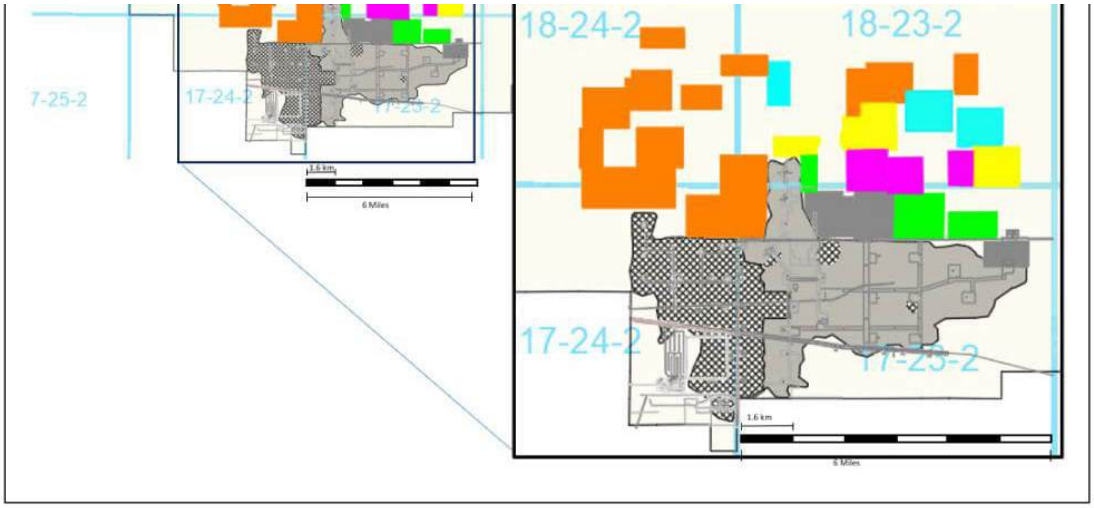


Figure 13-4: Mining Sequence and Cluster Planning

The mining sequence and cluster planning considers the following points.

- There will be no mining adjacent to previously mined out areas for stress distribution and rock mechanics considerations as per historical work completed in conjunction with RESPEC.
- The closer the cluster is to the Processing Plant, the less piping and pumping pressure is required to be maintained. Preliminary flow modeling has shown that a booster pumping station is not required for the duration of this LOM plan for sufficient flow to the more distant clusters. Further detailed work will be completed in the future to make a final determination as to the necessity of booster pumping stations. Other considerations that may influence this decision are deviations from cluster placement, fluid specific gravity, pipeline sizes and configurations, pumping performance of the current systems, etc. To ensure that minefield recycle flows are met, funding for two booster stations has been allocated in this plan as a cautionary measure.
- Due to the complexities related to the calculation of the payment of royalties. Mosaic has not and does not currently plan to mine caverns that straddle over boundaries between Mosaic-owned and Crown lease mineral properties. This consideration may impact the cavern layout of future clusters that have not yet been fully planned.
- Half a cluster (8 to 9 caverns) has been used as the smallest mining unit (SMU) for planning of mining.
- Caverns are placed according to geological contouring from the seismic interpretation to minimize bed dip between boreholes.
- Cluster and cavern placements are planned to optimize ore extraction while maintaining a minimum of a 300 ft. (100 m) buffer between caverns as required to minimize subsidence.
- Populated areas such as farmhouses, townships, etc. are typically avoided in the cluster and cavern placement plan. Areas of note are the Hamlet of Keystown in Section 36 of 17-23-W2 and the Belle Plaine Hutterite Colony located in Section 7 of 18-23-W2.
- If Mosaic is unable to procure key plots of land, pipeline and cluster building layouts may be affected and would have to be rc-planncd.
- The LOM plan includes mining only minerals that are Controlled (Mosaic owned, or Crown owned) as of December 31, 2024. No uncontrolled (privately owned by a third-party) minerals are included as tons mined in the LOM plan. Mosaic will plan to acquire the uncontrolled minerals and incorporate them into the LOM plan as mining approaches an area where uncontrolled minerals are located. Any purchase of uncontrolled minerals has the potential to increase the mine life at Belle Plaine. If Mosaic is unable to procure mineral rights for any uncontrolled minerals, it is possible that those minerals may be stranded if it is determined that Mosaic will mine around them. This would in effect leave a pillar in the middle of a mined-out area and it may not be advisable to return to that area due to stress distribution and rock mechanics considerations. Further geotechnical work would need to be completed on a case-by-casc basis.
- Surface property and mineral rights acquisitions have been built into an extended Capital project plan to account for the time needed to approach third parties before construction can begin on a cluster.

13.3.4 Cluster Site Design

A cluster site (well site) layout is based on between 16 and 18 caverns (32 to 36 boreholes) being drilled and developed from a single pad. Directional drilling makes it possible to support up to 18 caverns from one cluster pad. The cluster site is generally split into an “A side” and a "B side” each with 8 to 9 caverns. Typically, either an “A side” or “B side” is turned over to production each year. The cluster sites in the LOM plan will assume a 16.5 cavem/cluster average which is consistent with recent history. The mining footprint of a typical cluster site is approximately 1,200 hv I 400 in A cluster site consists of a duster hnildina an nil senaration nnnd a brine nnnd a ria nad with a snmn that drains to the oil pond, and wellheads along the rig pad. The entire lease is surrounded by a berm, or dyke, to manage any environmental impacts and 100-year rainwater events. A typical cluster site layout is shown in Figure 13-5.

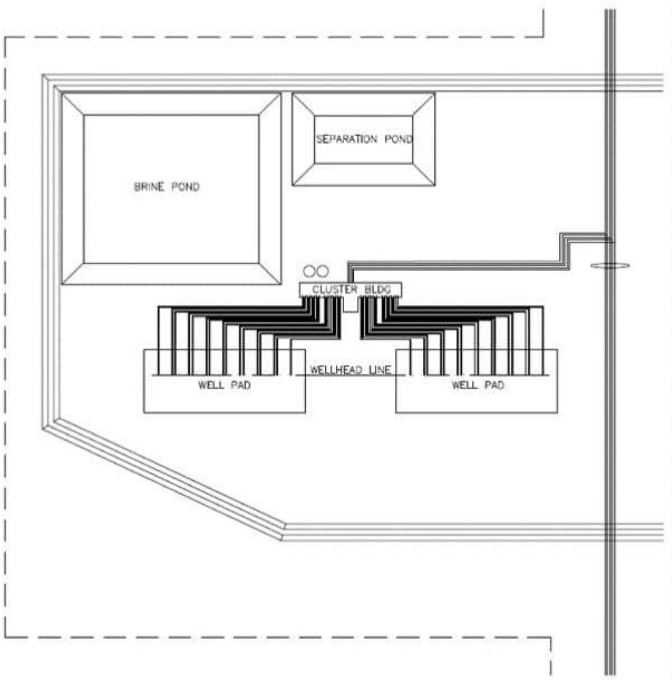


Figure 13-5: Typical Cluster Site Layout

13.3.5 Operational Cut-off Grades

There is no operational cut-off grade applied at Belle Plaine. This is because the solution mining method used al Belle Plaine is not selective to KC1 grade variability in the mineralization. At no point in the cavern development and mining process can a decision be made to mine or not mine the potash mineralization that is in contact with the mining solution. There is no control on what potash grade the mining solution dissolves to make a concentrate that is pumped to surface from the mining caverns for processing.

13.3.6 Mine Production Monitoring

Mine production monitoring is completed on multiple streams that are both inputs and returns to the Processing Plant. Individual caverns are monitored throughout their lifecycle. The process of monitoring production is discussed in the Mineral Processing and Metallurgical Testing section of this report.

13.3.7 Equipment

The Belle Plaine Potash Facility owns all the equipment necessary to execute the primary operational functions in the Mining Area, Some additional support equipment is provided and operated by contractors as necessary to provide secondary functions such as road maintenance, earth moving, etc. Table 13-2 outlines the amount of major Mining

Area equipment and their associated estimated useful life. The capital cost associated with the replacement of this equipment is included in the cash flow analysis.

Table 13-2: Major Mining Area Equipment

Major Assets in Current Equipment Fleet	Quantity	Estimated Useful Life (Years)
Drilling Rig	1	30
Service Rigs	7	30
Automated Service Rig	1	30
Wireline Logging Unit	3	20
Service and Support Equipment	As needed	Varies

The drilling rig is first scheduled to be replaced in 2040.

Each service rig will have an automated retrofit performed over the next 12 years. The retrofit along with major regulatory workovers will replace many of the major components of the service rigs and is projected to extend the asset life of each service rig by 25 years. The service rigs will then be replaced in the following years; 2049, 2050, 2052, 2053, 2055, and 2057.

The automated service rig is scheduled to be replaced in 2049 and the wireline logging units will be replaced in 2026 and 2031, with one being recently replaced in 2022.

Most of the support equipment in the fleet consists of various trucks and trailers, though it also contains forklifts, personnel lifts, loaders, etc.

13.3.8 Personnel

Table 13-3 outlines the Mining Area current and forecasted personnel requirements,

Il excludes personnel who may report to a centralized support function offsite. The Contract Headcount is stated as a Hull Time Equivalent (FTE) of 2,000 hours/year/person of time tracked through the site's safety performance metrics.

The bulk of the Mining Area Mosaic workforce is positioned as operational workforce, including supervisory roles. The total Mining Area headcount has stayed relatively flat since 2018 and is expected to stay relatively flat until production ramp down begins after the final year of drilling. Movement within the sub-categories can be a result of converting contractors to Mosaic personnel.

Where contracted employees are in an embedded contractor relationship, supervision is provided by the contractor with an assigned liaison for oversight who is a Mosaic employee.

Table 13-3: Mining Area Personnel Requirements

Employer	Area	2020	2021	2022	2023	2024	2025 to 2070	2071 to 2077	2078 to 2084
		Actual	Actual	Actual	Actual	Feast.	**Plan**	**Plan**	**Plan**
Mosaic	Maintenance	16	17	16	15	18	15	10	7
	Operations	73	70	76	71	70	71	**64**	61
	Other	2	4	4	4	4	4	2	**1**
	Total	**91**	91	96	90	92	**90**	**76**	**69**
Contractors	Maintenance	34	29	35	35	35	35	**19**	10
	Operations	8	11	9	9	8	9	8	8
	Other	1	2	1	1	1	1	**0**	0
	Total	43	42	45	45	44	45	**27**	18
Mining Area Total		134	**133**	**141**	**135**	136	**135**	**103**	**87**

14.0 Recovery Methods

14.1 Introduction

The Belle Plaine Potash Facility Processing Plant consists of a Refinery Area and a Cooling Pond Area.

The Refinery Area subjects the raw feed brine to changing temperatures that selectively precipitates NaCl and then K.C1 out of solution in different stages of the process. This selective precipitation occurs because of the differences in solubilities of NaCl and KC1 at varying temperatures.

The Refinery utilizes an Evaporator circuit to condition the raw feed prior to being fed into a Crystallizer Circuit, Both circuits promote boiling of the brine, that allows for energy capture by process flow streams that need to be heated before being sent back to the Mining Area.

The Cooling Pond area consists of multiple ponds that are fed with brine from the Refinery and with raw feed brine from the Mining Area. The ponds facilitate atmospheric cooling, that allows KCI to preferentially precipitate out of the brine. These ponds represent a very efficient method of KCI recovery, as minimal additional energy is required to facilitate the KCI recovered in this area of the operating process plant.

Well established solubility curves of HjO-NaCl-KCI systems are utilized to monitor the selective dropout of products in the process. Field samples are regularly taken and processed by the Belle Plaine metallurgical lab to confirm proper operational conditions in the Processing Plant.

14.2 Flowsheet

The flowsheet for the Belle Plaine Processing Plant is outlined in Figure 14-1.

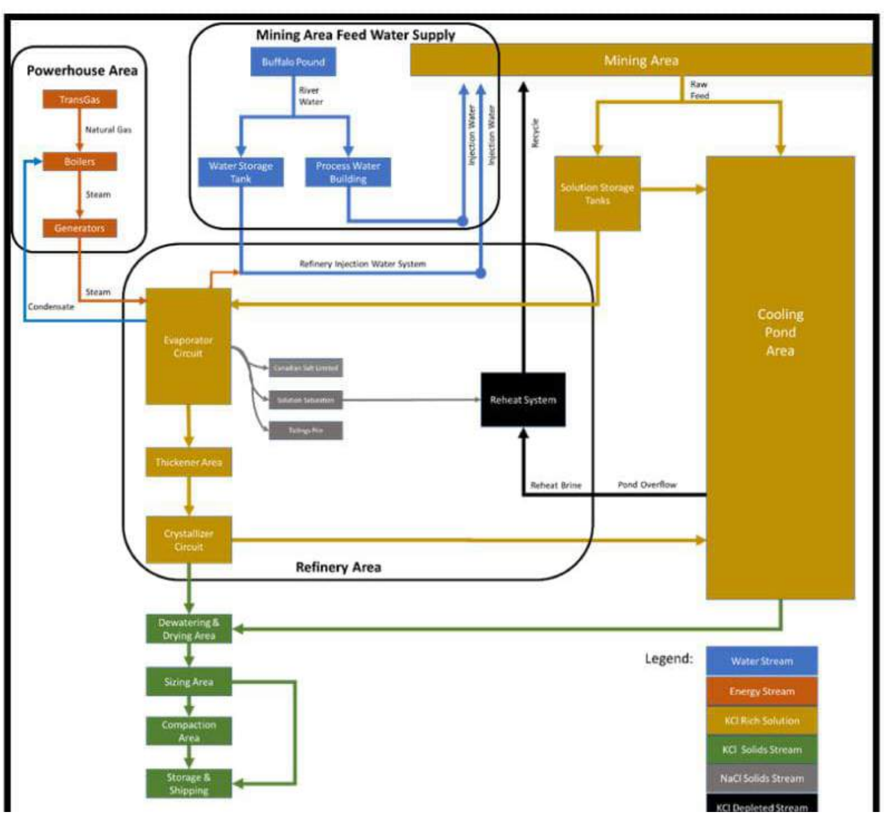


Figure 14-1: Processing Plant Flow Sheet

Injection streams for mining is a combination of heated water and recovered brines that are heated in the Processing Plant and used for development in the Mining Area. Water is supplied to site from a third-party vendor that draws from the local Buffalo Pound Lake and is pumped into two distinct Injection Water systems. These systems contain a combination of heat recovery and exchange equipment that heats up the water, prior to being pumped into the Mining Area Injection pipeline network. Energy is recovered from the site's Evaporator circuit and from a third-party industrial facility that is in close proximity to the Belle Plaine Potash Facility through heat recovery piping loops.

Solution .Storage Tanks

Raw feed from the Mining Area first enters the Processing Plant in the Solution Storage Tanks or it can be fed directly to the Cooling Pond Area. The Solution Storage Tanks feed the Refinery Area's Evaporator Circuit.

Powerhouse

The Belle Plaine Powerhouse contains several natural gas fired, water tube boilers that generate the steam required to run the Belle Plaine Solution Mining process. The on-site boilers are fed with natural gas and boiler feed water. The natural gas is supplied by a third-party company and the boiler feed water is condensate that has been recovered from

several steam fed heat exchangers within the process. The majority of the steam energy produced from the boilers is fed into:

- Turbo Generators for on-site electrical generation
- Steam driven equipment (example: turbine driven pumps)
- Evaporator Circuit heat exchangers (see Evaporator Circuit description)
- Process Heat Exchangers
- Pressure reducing valves for steam use at a lower operating pressure

The Powerhouse also utilizes power from Saskatchewan Power Corporation (SPC), that supplements on-site power generation and can provide backup to on-site power generation.

Evaporator Circuit

The Evaporator Circuit contains the equipment necessary to condition the NaCI and KCI containing brine for efficient KCI recovery. The Evaporator Circuit contains two lines of evaporators that operate in parallel. Each line contains four evaporators in series that are surrounded by circulation heaters with dedicated pumps.

Raw feed from the Solution Storage Tanks is pumped into each evaporator line, while steam from the Powerhouse Area is supplied to each of the evaporator lines. In this process, the energy and process brine flow counter-current to one another. As such, the process brine is heated and brought to a boil as the steam's energy is transferred to the brine. When the NaCI and KCI containing brine is heated and boiled in this process, it achieves a state that encourages efficient KCI precipitation in the downstream Crystallizer circuit.

As water is boiled off' in the Evaporator Circuit, it concentrates the constituents in solution to a point where NaCI is forced to precipitate. NaCI that precipitates in each evaporator is collected, dewatered, and then sent to one of the following locations:

- Re-slurried and pumped to a third-party to be sold as a saleable co-product.
- Re-slurried and pumped to the Tailing Management Area.
- Re-dissolved in site's Reheat System (See Reheat section below).

Thickener Area

Brine that has been conditioned in the Evaporator Circuit is fed into the Thickener Area to drop out impurities. This area consists of thickener vessels and associated pumps. Brine exiting the Evaporator Circuit is fed into the top of the thickener and is blended with a flocculent additive to assist in the dropout of impurities. The dropout of impurities is also mechanically assisted with an internal thickener rake, that further directs the impurities to the bottom cone of the Thickener vessel. Impurities are pumped from the bottom of the thickener to the Tailings Management Area, while clarified brine overflows from the thickener and is pumped into the Crystallizer Circuit for KCI recovery.

Crystallizer Circuit

The Crystallizer Circuit is fed with process brine that has been conditioned in the upstream Evaporator Circuit and clarified in the upstream thickener. The Crystallizer Circuit is designed to cool process brine through vacuum assisted evaporative cooling, that forces KCI to precipitate out of solution. The Crystallizer Circuit consists of multiple crystallizers in series that reduce the temperature of the brine through boiling. Boiling is achieved through the use of barometric condensers and ejectors, that results in the preferential precipitation of KCI from solution. KCI solids are withdrawn from each crystallizer vessel as a KCI slurry and pumped to the Dewatering and Dryer Area for processing. At the end of the Crystallizer Circuit, the cooled process brine is pumped to the Cooling Pond Area for further atmospheric cooling of the brine.

Cooling Ponds

The Belle Plaine Cooling Pond Area is used to cool brine through atmospheric cooling for the purposes of precipitating KCI out of solution. The Cooling Pond Area consists of 11 interconnected ponds and feeds into this area include a portion of the raw feed that is generated from the Mining Area, Crystallizer Circuit brine overflows, and several other

process slipstreams. As the brine flows through this area, it is gradually cooled because of the temperature difference between the brine and atmospheric temperature. As the brine cools. KCI is precipitated out of solution and deposits on the bottom of the cooling ponds through natural settling. When the brine reaches the end of the Cooling Pond Area, it is pumped back into the Refinery as "Pond Ovcrflow/Rehcat Brine" in the Reheat System or pumped to the Tailings Management Area.

The Cooling Pond Area contains several KCI dredges that are used to reclaim the settled KCI solids from the bottom of the Cooling Ponds. The dredges use a cutter wheel and slurry pump to send the solid KCI into a series of tanks that allow for impurity leaching and surge capacity for the Dewatering and Dryer Area.

Reheat Circuit

The Reheat System uses Cooling Pond Overflow brine to recover energy from Refinery Area vessels before the brine is pumped back to the Mining Area. Cooling Pond Overflow brine is pumped into the Reheat System through several pumps that are located at the end of the Cooling Pond Area and is relabeled as "Reheat Brine" once it enters the Refinery Area. The Reheat Brine is then fed into several barometric condensers and heat exchangers that increase the temperature of the brine. The barometric condensers facilitate efficient energy recovery by allowing direct contact between the Reheat Brine and the vapours being liberated from process vessels.

After the reheat, brine has achieved an appropriate temperature, it is pumped to a large surge tank where NaCl solids are added and re-dissolved back into solution. At this point, the brine is rebranded as "Recycle" and is pumped into the Mining Area as a feed stream.

Dewatering and Drying Circuits

The Belle Plaine Processing Plant contains several dewatering and dryer circuits that arc fed with KCI slurry withdrawn from the Crystallizer and Cooling Pond circuits.

Dewatering, or removal of process brine from the KCI solids as a filtrate, is achieved using hydrocyclones, a filter table, and several centrifuges. Filtrate brine is returned to the circuit that it was pumped from, while the KCI solids arc fed into natural gas fired industrial dryers. Each dryer is equipped with its own burner to produce high temperature combustion gas that comes into direct contact with the KCI solids to remove surface and internal moisture. Every dryer is also equipped with a wet scrubber or baghouse system to comply with local government emissions regulations. Testing is performed by a third-party annually and submitted to the Ministry of Environment as proof of compliance. Dried product exiting each dryer is then conveyed into an elevator that lifts the product into the Sizing Area or directly into the Compaction Area for further processing.

Sizing Area

The Sizing Area is comprised of screens and gates that are used to split the product by size and product purity. Some of the product exiting the KCI dryers is fed into an elevator that feeds a bank of screens. These screens separate product as "on-size" or "oversized" product. Oversized product reports to a crusher and is recycled back to the Sizing Area screens to be screened again. A portion of on-size product is sent to product storage warehouses, while the rest is sent to the Compaction Area,

On-size product that is not fed to the Compaction Area is treated and cooled in an industrial cooler. The product is then weighed and conveyed to the proper warehouse using belt conveyors. The Sizing Area is connected into a wet scrubber system that helps minimize area dust.

It should be noted that a small portion of on-size product can be pulled from the Sizing Area screens and transferred directly to the Loadout Area through a bell conveyor, where it can be packaged as 55 lb, (25 kg) capacity paper bags or 2,204 lbs. (1.000 kg) capacity totes.

Compaction Area

The Compaction Area is used to compress a portion of site's dry KCI particles into larger compacted material so that it can be crushed and/or screened to product grade size. The Compaction Area contains several compaction circuits, each containing its own set of elevators, conveyors, compactors, crushers and screens. Each compaction circuit is configured to produce a specific size of product, based on the typical feed purity. As such, compaction circuits are

generally isolated from one another to maintain product purity. Compacted products produced at Belle Plaine include Industrial products and a Pegasus Granular product.

Individual compactors are composed of two large diameter rolls that are spinning in opposite directions via an electrical motor and gearbox. Pressure is applied to the compactor rolls, while product is continually fed between the spinning rolls. This process mechanically compresses smaller KCI particles into a larger solid compacted material. The compacted material is gravity fed into a crusher that creates a distribution of particle sizes, which then feeds an elevator and bank of screens for sizing, or bypass crushing and go directly to screening.

Typical operation of compaction circuit screens allow the screen undersized product to be sent back to the compactors, the screen oversized product to be sent to another crusher in the system that discharges back into the screen's feed, and the screen on-size product to move forward in the process. On-size compaction circuit products are then cooled, weighed, and belt conveyed to the proper warehouse, based on purity and size requirements.

It should be noted that a slip stream of product is pulled off the Compaction Area and is fed into the K-Life Bagging area. This area bags, weighs, and palletizes KCI product for sale as a consumer based KCI water softener in 40 lb. (18 kg) bags. Palletized bags of product arc then forklifted into semi-trucks for distribution.

Storage and Shipping Area

Product is weighed and conveyed into the Belle Plaine warehouses through the use of belt conveyors and is distributed to the appropriate warehouse through the use of trippers or chutes that allow the product to freefall and land atop existing product in the warehouse. Product that is produced, stored and shipped offsite must meet customer grade. Product purity shipped from the site must contain a K2O equivalent content of 62.0%, that equates to a product purity of approximately 98 wt.%. The site product warehouses are configured such that each product has its own dedicated warehouse(s) to avoid product contamination.

When required, product in a warehouse is reclaimed through one of the two reclaim systems. Bucket loaders feed the reclaim systems that convey product back into the Refinery building for its final screening before it is sent to the site's shipping facility. During the screening process, "losses" are produced because of initial product breakdown that occurs in the Warehouse and through product conveyance. These "losses" are smaller KCI particles that have broken away from the compacted and sized KCI product and are primarily fed back into the Compaction Area or Sizing Area for reprocessing. These losses will work their way through the Compaction Area or Sizing Area and will return to a warehouse as on-grade product.

Product that is screened to size reports to a belt conveyor that transfers the product to the Shipping Area surge bins. These surge bins feed shipping systems that are filling semi-trucks or rail cars. Product entering a rail car or truck is weighed by government regulated scales.

Some of the products being conveyed to the Shipping Area can be transferred to the paper bagging/tote area, that is contained in the Shipping Area building. In this process, product is reclaimed to a product storage bin and then pulled out of the bin with a screw conveyor that feeds the bagging/tote system.

14.3 Equipment Characteristics and Specifications

Table 14-1 outlines and summarizes the Process Plant main equipment characteristics and specifications.

Table 14-1: Process Plant Equipment

Circuit/Area	Equipment Name
Powerhouse Area	Boilers
	Steam Turbine Generators
Mining Area Feed Streams	Injection Pumps
	Process Heat Exchanger
	Recycle Pumps
Evaporator Circuit	Raw Feed Tanks
	Evaporators
	Barometric Condensers
	Cooling Towers
Thickener Area	Thickener Vessel
	Thickener Pumps
Crystallizer Circuit	Crystallizer Vessels
	Barometric Condensers
Cooling Ponds	Cooling Ponds
	KCI Dredges
	Cooling Pond Overflow' Pumps
Dewatering and Drying	Hydrocyclones
	Filter Table
	KCI Centrifuges
	Industrial Dryers
Reheat System	Barometric Condensers
	Heat Exchangers
Sizing Area	Sizing Area Screens
	Sizing Area Product Coolers
Compaction Area	KCI Compactors
	Product Crushers
	Compaction Area Screens
	Compaction Area Coolers
Storage and Shipping	Product Warehouses
	Reclaim System Conveyance and Screens
	Rail/Truck Loading Tracks

14.4 Water and Energy Requirements

The Belle Plaine process is an energy and water intensive process. Over the many years of production, upgrades have been implemented to increase the efficiency of the overall process. The historical and the future water and energy requirements to meet production requirements are listed in Table 14-2.

Table 14-2: Water and Energy Requirements

Year	2020	2021	2022	2023	2024	2025 to 2027	2028 to 2066	2067 to 2070	2071 to 2080	2081 to 2084
	Actual	Actual	Actual	Actual	Feast.	Plan	Plan	Plan	Plan	Plan
Natural Gas Energy Purchased, GJ/day	35,786	37,819	38,093	36,566	38,924	39,799	40,169	36,657	25,633	22,622
Energy Recovery from Third-Party, GJ/day	985	1,262	1,002	1,707	1,429	2,433	2,433	1,532	794	794
Average Import Power from SPC, MW	2.95	4.12	4.58	5.16	4.03	4.89	1.23	1.53	3.67	6.29
Average Water Usage, US gallon/min	3,369	4,985	5,237	5,261	5,827	5,259	7,889	5,402	2,787	2,795

Future water and energy requirements are estimated using a mass and energy balance software package that has been programmed to simulate the Belle Plaine process. Table 14-2 outlines that there are varying levels of energy and water consumption over historical and future years. Total water and energy consumption required in each year is largely influenced by the number of caverns in development. As discussed in Section 13, developing caverns requires heated water (Injection Water) to efficiently develop an underground cavity. As the Belle Plaine production tonnage increases

to a sustained 3.30M tons/year (3.0M tonnes/year) output, a sustainable number of caverns will need to be drilled each year, followed by several years of development. The predicted water and energy requirements reflect this progression towards a sustained nine caverns drilled per year between 2027 to 2066. Inputs into site then decrease over the site's ramp down that occurs between 2067 and 2084.

14.5 Personnel

The Belle Plaine Processing Plant workforce consists of Mosaic personnel and contractors. The breakdown of Mosaic and Contract headcount for the Processing Plant is listed in Table 14-3. It excludes personnel who may report to a centralized support function offsite. The Contract headcount is stated as a Full Time Equivalent (FTE) of 2,000 hours/year/person of time tracked through the Belle Plaine safety performance metrics.

Table 14-3: Processing Plant Personnel

Employer	Year	2020	2021	2022	2023	2024	2025 to 2070	2071 to 2080	2081 to 2084
		Actual	Actual	Actual	Actual	Feast	Plan	Plan	Plan
Mosaic	Maintenance	69	67	71	73	73	73	53	37
	Operations	111	111	108	119	114	119	106	97
	Other	4	3	3	3	3	3	3	2
	Total	184	181	182	195	190	195	162	136
Contractors (FTE >	Maintenance	129	137	127	127	131	127	90	63
	Operations	11	9	6	5	5	5	3	3
	Other	2	2	2	2	2	2	2	3
	Total	142	148	135	134	138	134	95	69
Processing Plant Total		326	329	317	329	328	329	257	205

The majority of the Processing Plant's Mosaic workforce is positioned as operational workforce, including supervisory roles. The total Mosaic personnel count has maintained a relatively consistent trend. This trend is expected to continue throughout the remaining life of the Belle Plaine site until the site's ramp down that begins in 2067.

The majority of the contractor workforce is utilized in maintenance activities through common industrial trades (Pipefitters, Millwrights, Carpenters, etc.). A portion of the trade skills required is sourced through a third-party contractor. This facilitates the increased flexibility in resources that may be required for maintenance shutdowns. Where contracted employees are in an embedded contractor relationship, supervision is provided by the contractor with an assigned liaison for oversight who is a Mosaic employee. The Processing Plant's total contractor headcount has stayed relatively constant in recent years and this trend is expected to continue until the site's ramp down.

14.6 Key Metrics

The historical and future key metrics for the Belle Plaine Processing Plant have been tabulated in Table 14-4. It should be noted that historical values listed in Table 14-4 have been estimated from field level measurement, on-site metallurgical analysis, on-site Quality Assurance/Quality Control (QA/QC) analysis, and third-party inventory assessments. Metallurgical and QA/QC testing information is outlined in Section 10 of this report. Future tonnage recoveries are estimated using a mass and energy balance software package that has been programmed to simulate the Belle Plaine process.

Table 14-4: Kev Processing Plant Metrics

Area/ Location	Year	2020	2021	2022	2023	2024	2025 to 2027	2028 to 2066	2067 to 2070	2071 to 2080	2081 to 2084
		Actual	Actual	Actual	Actual	Feast	Plan	Plan	Plan	Plan	Plan
	Net Mined KCI, M tons	3.316	3.700	3.788	3.494	3.928	3.992	4.194	3.256	1.882	1.417

Area/ Location	Year	2020	2021	2022	2023	2024	2025 to 2027	2028 to 2066	2067 to 2070	2071 to 2080	2081 to 2084
		Actual	Actual	Actual	Actual	Feast	Plan	Plan	Plan	Plan	Plan
Total Site Processing Recovery	Change in Cooling Pond KC1 Inventory, M tons	-0.096	0.242	-0.040	-0.001	-0.210	-0.098	0.009	-0.108	-0.010	-0.044
	Change in Warehouse KCl Inventory, M tons	-0.075	-0.021	0.107	-0.096	0.000	0.000	0.000	0.000	0.000	0.000
	Total Shipped KCl, M ions @ 98 weight% KCl Purity	3.195	3.055	3.011	3.139	3.245	3.300	3.293	2.983	1.808	1.363
	Total Site KCl Processing Recovery, %	91.2	88.5	81.3	87.1	77.3	80.2	78.8	89.6	95.6	93.0
Refinery Area	Total Refinery KCl Input, M tons	3.800	3.828	3.764	3.507	3.937	3.970	3.846	3.440	2.201	2.173
	Crystallizer KCl Production to Warehouse, M tons	1.692	1.704	1.689	1.668	1.798	1.722	1.672	1.461	0.811	0.797
	Refinery KCl Recovery, %	44.5	44.5	44.9	47.6	45.7	43.4	43.5	41.9	36.8	36.7
Cooling Pond Area	Total Cooling Pond KCl Input, M tons	4.301	5.000	5.112	4.669	5.055	5.162	5.516	4.789	3.401	1.749
	Change in Cooling Pond Inventory, M tons	-0.096	0.242	-0.040	-0.001	-0.210	-0.098	0.009	-0.108	-0.010	-0.044
	Cooling Pond KCl Production to Warehouse, M tons	1.569	1.527	1.505	1.471	1.573	1.578	1.621	1.522	0.997	0.567
	Cooling Pond KCl Recovery, %	34.3	35.4	28.7	31.5	27.0	28.7	29.5	29.5	29.1	29.9

It should be noted that Table 14-2 includes a relatively steady state operation between 2027 to 2066. During this time, Mining Area caverns are drilled at a rate closely equal to their consumption and site achieves very consistent year over year performance. This tabic also includes a Belle Plaine ramp down period between 2067 to 2084. During the ramp down, drilling is no longer completed, and only one of the two evaporator lines is run to maintain an overall system hydraulic balance. The Mining Area continues to feed the Refinery and Cooling Pond Areas until cavity inventory is pulled down to an insufficient state, that was found to occur after 2084.

The historical Refinery Area and Cooling Pond Area recoveries have proven to be relatively constant, and this trend is expected to continue in the life of mine plan, until a progressive ramp down of the site occurs in 2067. On the other hand, historical and future total processing recoveries do change over time. This is because the total site balance is influenced by the total number of cavities that are developing and the freshwater input required to facilitate their development. As the freshwater flow increases to site, the total deep well brine disposal flow out of the Belle Plaine process will also increase because of site's overall hydraulic balance. Deep well brine disposal represents a loss of KCl mass and reduces the site’s total processing recovery. As the total number of cavities in development has varied over historical years and as the site moves towards a sustainable drilling rate to sustain a 3.30M tons,'year production rate, the predicted total K.C1 process recoveries are expected to trend and stabilize accordingly.

The ability of the operation to produce at a sustained 3.30M tons/year in future years is also backed by a Canpotex proving run in 2016/2017, when the Belle Plaine site achieved a proven nameplate of 4.3M tons/year (3.9M tonncs/ycar), and achieved a maximum demonstrated rate of 550 tons/hour (499 tonnes/hour) across the Dryer, Sizing, and Compaction areas over a four day period. The site also achieved a daily shipping record of 19,319 tons (17,526 tonnes) over this proving run.

15.0 Infrastructure

15.1 Introduction

The Belle Plaine Potash Facility is situated in close proximity to relevant existing infrastructure. The TransCanada Pipeline passes through the Mining Area, a large body of water is located less than 12.5 miles (20 km) away, there is easy access to rail, and two significant population centers are located within 30 miles (48 km) of the Belle Plaine Potash Facility.

The Belle Plaine Potash Facility has the infrastructure in place to meet the current production goals and LOM plan. Additional infrastructure may be added to increase reliability of the existing product lines or provide production flexibility. The assets currently in place are maintained through a robust workflow' process that focuses on proactive inspections and preventative maintenance while trying to minimize reactive maintenance.

Belle Plaine uses qualitative and quantitative inspections to identify the current condition and remaining life of the assets. The assets are inspected using a risk-based approach following the American Petroleum Institute Recommended Practice - API RP 580 and there is a dedicated mechanical integrity team on-site that is focused on inspections and creating remediation plans when deficiencies are identified.

The major structural assets at Belle Plaine are inspected by third-party professional engineers, and models of the main structures are available to quickly and accurately determine member by member fitness for service. Belle Plaine uses a data management tool for inspected assets and to prioritize maintenance based on risk. This tool also makes it easy to communicate the risk of any asset and to update following repairs or follow up inspections.

Belle Plaine also relies on some infrastructure that is maintained by third parties. These are listed in Table 15-1.

Figure 15-1 shows the location of the major Belle Plaine infrastructure. Figure 15-2 is a detailed view of the plant and Tailings Area infrastructure.

Table 15-1: Infrastructure Maintained by Third Parties

Infrastructure	Supplied and Maintained bv
Rail Network	Canadian Pacific Railway (agreement to access Canadian National Rail)
Road Network	Rural Municipality of Pcnse (No. 160) and Saskatchewan Highways
Process Water	SaskWater
Power	SaskPower
Natural Gas	TransGas and Sask Energy
Communications	SaskTel

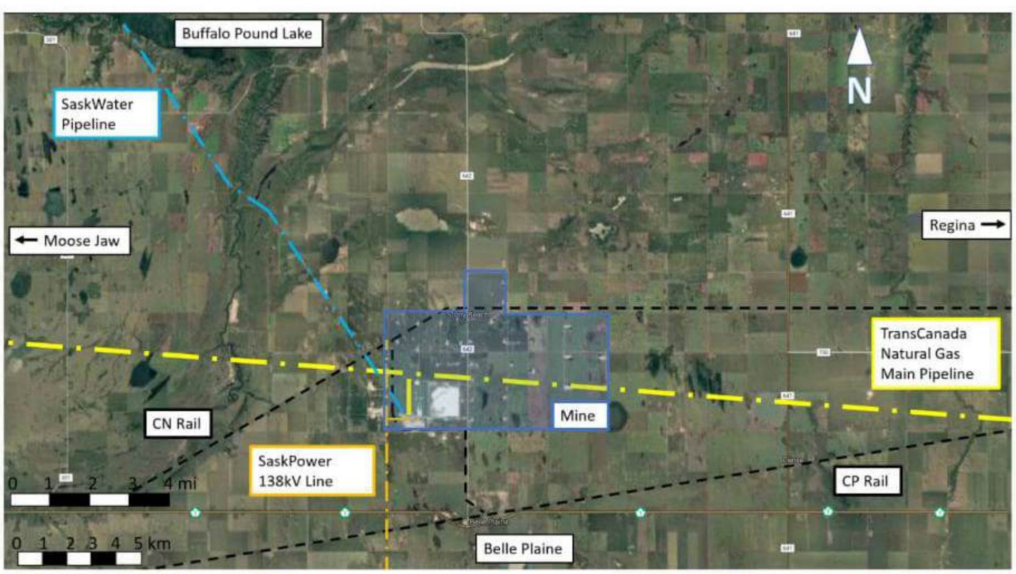


Figure 15-1: Major Infrastructure

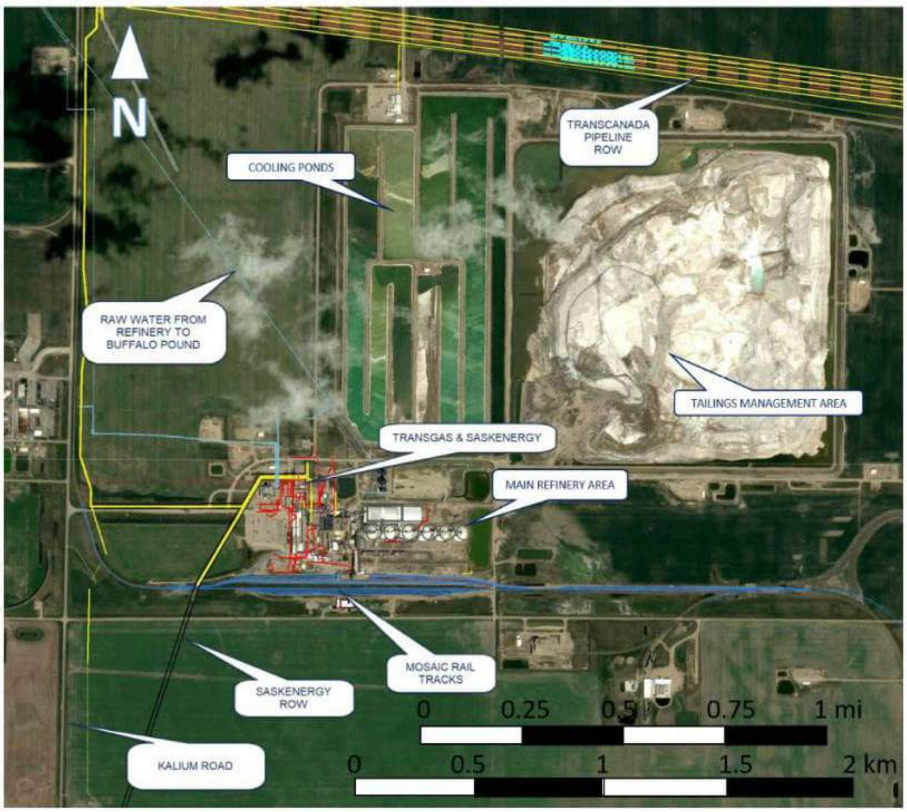


Figure 15-2: Detailed Plant and Tailings Area Infrastructure

15.2 Roads and Logistics

The main road access to the site is via Kalium Road that provides access from the main corridor between Moose Jaw and Regina, TransCanada Highway #1 (Figure 15-1). Alternate access to the Mining Area via the East/West Highway SK 730 orNorth/South Highway 642. Access to site is maintained throughout the year with snow clearing and grading being a normal routine practiced.

There are a variety of site-maintained and Rural Municipality of Pense (No. 160) maintained roads through the Mining Area. These arc typically gravel roads. Roads around the processing plant arc paved and maintained regularly.

Canadian National and Canadian Pacific Railways arc available to Belle Plaine to move final product to port. The majority of finished product leaves site by rail. Belle Plaine is party to a Tri-Party Joint Operating Agreement with Canadian Pacific (CP) and Canadian National Railways (CN), dated July 20, 1967, that governs the joint operation and interaction of all parties for freight services at the Belle Plaine Potash Facility. Mosaic owns a portion of the tracks on site. Product is then moved via the CP Rail to port or south into the USA. Since Belle Plaine is located between the CN and CP rail lines, the loadout tracks are tied into the CN Lead and CP Spur.

15.3 Tailings Storage Facilities

The TMA (Tailings Management Area), consisting of a salt pile, brine pond and the surrounding containment dykes, was first constructed in 1964 on low hydraulic conductivity foundation soils (Regina Clay and glacial till), A generalized cross section (Figure 15-3) from top to bottom includes Regina Clay overlaying glacial till, followed by disturbed Bearpaw Shale overlying the basal intact Bearpaw Shale. More detail is outlined in Section 17.6.3. A composite French drain system surrounds the entire TMA and has been shown to be effective at reducing porewater pressures in foundation materials and thus reducing brine migration from the mine site. The tailings management area (TMA) at Belle Plaine is regulated by the Saskatchewan Ministry of Environment (MOE).

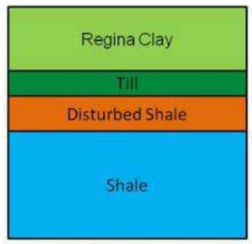


Figure 15-3: Simplified Stratigraphy of the TMA Area

The TMA is located northcast of the general Refinery and is used to store the tailings produced from the solution mining process. The TMA area is approximately 217 hectares in size.

Tailings are discharged through two separate spigots onto the tailings pile, at which point the salt is allowed to settle onto the tailings pile and the brine is decanted to the brine pond. Heavy equipment is used to create berms to direct the flow of the discharges and help with strategic tailings placement.

A plan is in place to raise the height of the current TMA salt pile in a staged approach with benches set back to preserve the stability of the overall pile. A cross section of the current and future state is shown in Figure 15-4.

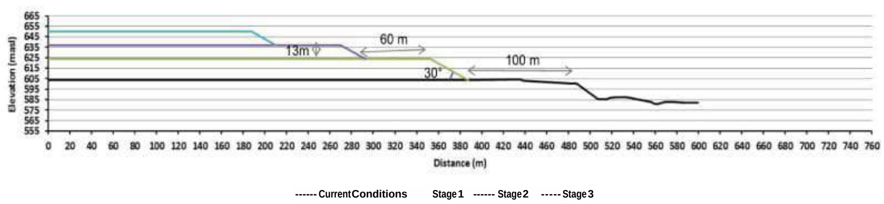


Figure 15-4: Typical Cross Section of TMA Pile with Current and Future States

Brine injection wells at the facility reduce the net deposition to the tailings area. A composite French drain system, constructed between 2005 and 2015 is located around the north, east and south perimeters of the TMA. The French drain is used to collect seepage from the TMA pond, that is pumped back into the pond via dewatering wells.

Mosaic has committed to the Ministry of the Environment (MOE) to raise the TMA dykes by 2025 as per the Saskatchewan Potash Industry Brine Pond Freeboard Guidelines and Reporting Requirements within the ATO.

Monitoring of the TMA includes, but is not limited to:

- Site visits and review by operations personnel twice a day.
- Monthly inspections of the TMA dyke.
- Quarterly monitoring performed by a Mosaic environmental consultant.

- An annual inspection completed in the fall by a Mosaic environmental consultant, focusing on the TMA dykes.
- Real time instrumentation monitoring of portions of the TMA dykes and tailings pile. The instrumentation includes vibrating wire piezometers, and slope inclinometers, that monitor and measure any movement and provide alarms.

Refer to Section 17 for additional information about the TMA.

15.4 Brine Management Structures

The cooling ponds occupy approximately a space of 85 hectares and are similar in construction to the TMA. using local Regina Clay to build up the dykes. Cooling ponds were built in 1984 as an alternative refining technique to the evaporation,'crystallization process, greatly reducing the natural gas needed to refine potash.

The pond dykes are monitored in a manner similar to that outlined for the TMA.

15.5 Built Infrastructure

The infrastructure built at the Belle Plaine Potash Facility includes:

- A sewage digester for the main refinery and maintenance/office buildings.
- A fire water system with backup generators for the processing plant. Belle Plaine has agreements with the local Rural Municipality of Pense and the Yara Belle Plaine Inc. (that operates a nitrogen fertilizer production facility adjacent to Belle Plaine) to support each other in emergency situations.
- The Mining Area consists of hundreds of kilometers of buried pipeline that supports the mining process and transports brine and w[r]ater to the mine and raw feed for the recovery of potash back to the Refinery and Cooling Ponds.
- Tanks and pumping systems to support the mining and get the Refinery raw feed arc a part of the mechanical integrity program.
- Belle Plaine has a number of Refinery workshops and buildings for the storage of parts and spares.
- Belle Plaine has a fiber mesh system in place in the Mining Area to support instrumentation. For communications on-site there is a radio system in place as well as a portable cellular tower provided by SaskTel that boosts cell reception for the site.

15.6 Power and Electrical

SaskPower provides a portion of the power required to run the Belle Plaine Potash Facility. This power comes in off their main grid that could be fed from any number of power plants, along the highline running north and south along Kalium Road (Figure 15-1). A total of 138 kV comes into the Belle Plaine substation through overhead lines to a Mosaic owned 138kV disconnect, where it is then stepped down to 13.8 kV using two transformers (28 MVA and 33.3 MVA). Belle Plaine owns and manages their substation where there is also a 138 kV grounding transformer and a 138 kV gas insulated switchgear lineup.

The Belle Plaine Potash Facility generates power from the site powerhouse from two steam turbine generators.

Typically, the total required Belle Plaine power requirement is 90% in-house generated power with the remaining being 10% fed from SaskPower. Belle Plaine docs not have the option to send power back to the SaskPower grid.

From the on-site substation, 13.8 kV transformer secondary cables arc fed to 13.8 kV switchgear in the Powerhouse to MCC rooms throughout the plant area and mine area. Belle Plaine uses overhead and buried cables throughout the mine area and cable trays in the Refinery for the 13.8 kV distribution.

The existing powerhouse at Mosaic Belle Plaine consists of three boilers installed between 1964 to 1968 which are industrial water-tube boilers, and one newer water-tube boiler installed in 2010. Steam produced by the boilers is supplied to two turbines to generate electricity, as well as to the brine injection pumps, and evaporator heat exchangers used to produce potash.

The existing 1960s era boilers must be modified or replaced to meet new MSAPR *(Multi-Sector Air Pollutants Regulations)* set by the Canadian Government. These regulations set air pollution emission standards across Canada and limit the amount of nitrogen oxides (NOx) allowed to be emitted from gaseous fuel-fired non-utility boilers.

Belle Plaine will replace one of the existing 1960s boilers with a new[r] boiler installed south of the existing powerhouse and retrofit the other two 1960s boilers with new Low-NOx burners to reduce emissions. Removal of the boiler air preheaters, and installation of economizers and low-temperature process heat exchangers will improve boiler efficiency. The boiler built in 2010 meets the 2026 standard and will not require retrofitting or replacement.

15.7 Natural Gas

TransGas supplies natural gas to the Belle Plaine Potash Facility. The gas flow's from the main lines into a local regulator station situated just north of the administration building and powerhouse. This station takes the high pressure feed from the main lines and cuts it down through on-site filtration and also docs some pre-heating to provide low pressure gas directly to the facility.

15.8 Water Supply

The main source of w[r]ater (non-potable) required for production is provided by SaskWater from Buffalo Pound Lake, an 18 mile (29 km) long, 0.6 mile (1 km) wide lake with an average depth of 10 ft. (3 m), located northwest of the mine (Figure 15-1). Buffalo Pound Lake also supplies potable water for the cities of Regina, Moose Jaw and surrounding regions. Water levels are controlled by the SaskWater Security Agency and managed through the Lake Diefenbaker Dam.

SaskWater operates a dedicated pumping station located on the south shore of Buffalo Pound Lake near the eastern edge of the lake with capacity of approximately 13,000 US gallons per minute. There are three on duty pumps and a fourth on standby to ensure steady supply. Belle Plaine typically runs two pumps to meet the water current needs with the other pumps providing peaking capacity for future mining.

Potable water is supplied for the site from the Buffalo Pound Water Treatment facility that is operated by SaskWater. Belle Plaine also has a tie-in to the potable water line that feeds the Citv of Regina.

16.0 Market Studies and Contracts

16.1 Markets

Potassium is one of the three primary crop nutrients required for plant growth and is not substitutable. Potassium chloride, otherwise referred to as muriate of potash (MOP), as well as other fertilizer products derived from it, provides the overwhelming majority of potassium nutrient worldwide. While the term potash can be used to refer to a number of salts that contain potassium in a water-soluble form, it is common practice to refer to MOP as potash. Relatively small volumes of potash are also utilized in industrial applications and as a mineral supplement for livestock.

The global market for potash is estimated to be approximately 72M tonnes in 2024 and has grown at a compound annual growth rate of around 2.5% over the past thirty years. In other words, potash demand over the long term has been rather linear, though with significant year-to-year variability. Going forward, global potash demand growth is expected to continue this trend, with Mosaic and independent analysts projecting a growth rate of 2 to 3% per annum. This growth ensures sufficient market demand for continued production at the Belle Plaine Potash Facility. Belle Plaine produces several specifications of potash that are sold into the crop nutrient (to be utilized as fertilizer) and industrial markets, domestically, defined as the U.S. and Canada, as well as export markets. Mosaic's sales of potash are split about evenly between domestic and offshore markets. Due to the solution mining nature of the Belle Plaine operation, the potash produced contains fewer impurities and has a higher content of potassium (i.e., a K?O content of ~62% versus the more common 60% associated with the majority of potash products). The higher-grade results in a modestly higher market price for Belle Plaine potash.

Potash prices may also vary due to the physical sizing of the product. For example, there is generally a price premium for granular (blend) grade product versus standard grade product. Belle Plaine produces a combination of granular, standard grade and industrial products. For the purposes of this analysis, no market premium for Belle Plaine product is assumed. A simpler and more conservative approach is to assume that the Belle Plaine production is representative of the FOB Vancouver price benchmark published by an independent third-party that includes standard and granular potash sales.

16.2 Commodity Price and Exchange Rate Forecasts

The commodity price forecasts utilized in the analysis arc derived from an independent third-party, CRU, a reputable supplier of market forecasts across a range of commodities including potash. Specifically, CRU publishes a regular forecast of potash pricing on an FOB Vancouver basis that incorporates prices for a blend of various grades of potash. The CRU also publishes historical and forecast potash production cost estimates for most mines around the world, including Belle Plaine. These cost estimates include figures on an FOB port of Vancouver basis as well a site cost (ex-works) basis at Belle Plaine. The difference provides an estimate of the handling and transport cost from the mine to port. For the 2024 LOM plan, the arithmetic average of the forecast values from 2025 to 2029 have been used (Table 16-1).

The price forecast is conservative, as the price reflects export sales (FOB Vancouver) and docs not account for the higher mine netbacks that are achieved with domestic market sales.

The U.S. dollar ! Canadian dollar exchange rate utilized in the analysis is derived as the arithmetic average of the five years 2020 to 2024, with the actuals sourced from Bloomberg.

Table 16-1: Commodity Prices and Exchange Rates

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	LOM
	Actual	Actual	Actual	Actual	Feast.	Plan	Plan	Plan	Plan	Plan	Plan
Foreign Exchange (USS/CS)	1.34	1.25	1.30	1.35	1.36	1.32	1.32	1.32	1.32	1.32	1.32
Potash KC1 (USS/tonne)	178	210	571	355	197	211	263	281	256	261	319

Sources:

1. FX rate: (Actual) Bloomberg - arithmetic average of the end-of-day spot rate; (Forecast) Arithmetic average of the five years 2020 to 2024.
2. Potash: CRU Potassium Chloride Market Outlook June 2024, FOB, Vancouver minus an estimate of the cost of freight/handling from mine to port via the CRU Potash Cost Service October 2021 (FOB cost minus cost ex-works at realized production). CRU's report does not have a datapoint tor 2029, so these figures were estimated using data from the 2028 forecast. LOM is a 10-years average of 2019-2028

16.3 Contracts

Potash sales from Belle Plaine can be split into two general categories: domestic and export.

Export sales occur through Canpotex Limited, a joint venture between potash producers Mosaic and Nutrien Ltd. Canpotex undertakes all sales of the member producers' potash outside of the U.S. and Canada. All Belle Plaine export sales arc made to Canpotex. Canpotex then moves the product to offshore markets and sells the product. The Canpotex sales are a combination of spot and contract sales (with contract duration typically one year or less) to longstanding customers.

Domestic sales are managed internally by Mosaic. Over half of these sales are made on a spot basis, with the remainder of sales under longer-term contracts (with prices that adjust to reflect market conditions).

17.0 Environmental Studies, Permitting and Plans, Negotiations or Agreements with Local Individuals or Groups

17.1 Introduction

The information as supplied regarding the management of all environmental aspects, permitting and social considerations at Mosaic facilities is guided by Mosaic's Environmental, Health and Safety Policy, the Mosaic Management System Program and Procedures and current regulatory requirements.

17.2 Baseline and Supporting Studies

Groundwater Studies

Investigation of groundwater at the Site has been a continual process since mining began with many boreholes and wells installed over the operational history. To date there have been over 1,200 boreholes drilled for various environmental monitoring purposes and over 600 installations completed including monitoring wells, dewatering wells, vibrating wire piezometers, pneumatic piezometers, slope inclinometers, EM39 ports, etc. The drilling, instrumentation and testing programs, coupled with ongoing groundwater level and chemistry monitoring and periodic electromagnetic (EM) surveys have characterized the hydrogeology and are used for environmental monitoring purposes. The following discussion provides supporting groundwater studies that have been instrumental in environmental investigations and permitting to date.

To assist with site characterization, a High Resolution Electromagnetic (HREM) survey has been completed for the site. Apparent resistivity maps identified strong anomalies north and east of the existing TMA, in areas largely devoid of shallow stratigraphic information. Confirmatory field investigations indicated predominantly tills and stratified deposits infilling topographic lows created by channel structures identified in the HREM surveys.

Groundwater assessments completed to date include mapping of aquifer limits, potentiometric, and chloride concentrations for the site. Chloride and hydrocarbon concentrations and potentiometric trends have also been assessed in conjunction with EM data to evaluate potential migration, impacts and the groundwater monitoring network itself. Risk to the closest third-party groundwater users in the vicinity of the site appeared to be minimal at the time of the last assessment.

A 100-year, 3D groundwater flow and solute transport modeling study was completed to identify potential sub-surface brine migration issues and evaluate a potential horizontal brine mitigation system. The modeling and monitoring to date show's that groundwater flow and solute transport is downward and then radially away from the ponds and the TMA in the higher hydraulic conductivity sediments. Lateral groundwater flow' is in a north-easterly direction in the Quaternary-aged sediments and fractured Bearpaw Formation shale, except to the west and south of the Tailings Management Area (TMA), where groundw'ater flow is interpreted to be in a westerly and southerly direction from the TMA.

Air Baseline and Supporting Studies

Air dispersion modeling (using AERMOD) was completed for Mosaic Belle Plaine in 2022 (WSP 2024). The results are used to determine if a pollutant is expected to present at a particular concentration to evaluate compliance with the Ministry of Environment (MOE) Saskatchewan Environmental Quality Guidelines for Ambient Air Quality. Model inputs included emissions from nearby industrial facilities.

The Mosaic Potash Belle Plaine 2023 Annual Environmental Report (AER) includes air management commitments and strategies. The report also contains the results of a dryer compliance stack sampling program at the Belle Plaine mine site. This sampling program included the results of testing of dryer exhaust stacks that demonstrated particulate emissions complied with the Ministry of Environment (MOE) Saskatchewan Environmental Quality Guidelines.

Biophysical Baseline and Supporting Studies

Baseline biophysical studies were completed as part of the Belle Plaine Expansion EIA (MDH 2009a), as well as the Technical Proposals for Cluster Site 40, Cluster Site 41, Cluster Site 42, Cluster 43 and Cluster 44 developments. These studies included both field and desktop assessments of the terrain and soils, terrestrial and wetland vegetation, w'ildlife and wildlife habitat, species of conservation concern, and land cover mapping exercises. The studies also included a summary of expected impacts and mitigation measures on the biophysical environment that related to development of the cluster sites.

A Wildlife Management Plan is also in place for the Belle Plaine Potash Facility. The management plan includes general guidance for management of wildlife commonly encountered on the site including a description of the wildlife and w'ildlife habitat in the area, wildlife management protocols, and mitigation and protective measures for w'ildlife in the area. Mosaic has also developed additional management plans specifically for Canada goose nest management, migratory bird nest management and deterrence, and burrowing mammal assessments.

Surface Water Baseline and Supporting Studies

A regional hydrology assessment was completed as part of the Belle Plaine Expansion Environmental Impact Assessment (MDH 2009a and 2009b). This assessment included a study and description of the dominant hydrological processes, topography, hydrological features, soils, and land use within the proposed expansion area. It also identified potential project impacts on hydrological processes and water features in the area and evaluates post-expansion Hood storage capacity at the Belle Plaine mine site.

A predictive subsidence analysis update was completed for Belle Plaine to evaluate the potential impact of subsidence on the existing and future regional surface water and mining infrastructure at the Belle Plaine site. This analysis included a hydrology assessment to quantify the effect the predictive subsidence would have on the regional surface w'atcr features associated with cluster site development and mining infrastructure.

Wetland delineation programs were conducted at the Belle Plaine Mining Area to provide a reference for future mine site activities. These programs used desktop and field-based methods to delineate and classify (where applicable) wetlands within the mine site area. They also provided mitigation recommendations for work within or near wetlands to avoid or minimize potential impacts from future activities, including relevant permitting requirements.

The 2023 AER includes surface water management commitments and strategies, field-level monitoring procedures, and monitoring results for the Belle Plaine mine site.

Heritage Assessments

When undertaking a new development. Mosaic adheres to provisions of *The Heritage Property Act* to protect any nentage resources, in alignment with requirements set tortn by me Government ot basKatcnewan. me nentage screening process within a project area includes partnering with a third-party expert and consulting with the Saskatchewan Heritage Conservation Branch of the Government of Saskatchewan. This information is included in a comprehensive report that is subsequently provided to the Saskatchewan Ministry of the Environment for review and approval prior to development.

17.3 Environmental Considerations/Monitoring Programs

17.3.1 Environmental Considerations

Legacy Information

Constituents of potential concern (COPC), existing assessment data, known and/or potential contamination and exposure pathways, assessment needs and risks, required actions, etc. associated with areas of interest (AOI) have been documented by Mosaic. Any remaining COPCs will be addressed at the final decommissioning & reclamation phase.

Permitting

Approval to Operate Pollutant Control Facilities No. PO18-107

Mosaic holds an Approval to Operate Pollutant Control Facilities No. P018-I07 (ATO) for the Mosaic Belle Plaine Facility, which is issued by the MOE under *The Environmental Management and Protection Act, 2010* (Saskatchewan). The ATO expires on July 1, 2028. Note that it is expected to be renewed on or before the expiry date. This permit provides the terms and conditions for operation of the site with respect to:

- tailings and brine management
- materials, storage, handling, and transportation
- waste management, transportation and disposal
- air quality management
- pipelines
- inspections, monitoring and reporting
- decommissioning and reclamation
- contingency planning and reporting
- alterations
- other site-specific conditions

Approval for Hazardous Substances and/or Waste Dangerous Goods

Approval no. PO18-106 provides the Approval to Construct, Alter, Expand, Operate, and Decommission a Hazardous Substances and/or Waste Dangerous Goods Storage Facility, pursuant to *The Hazardous Substances and Waste Dangerous Goods Regulations;* Chapter E-10.2 Reg 3, issued by the MOE.

17.3.2 Environmental Monitoring

Groundwater Quality Monitoring

There are over 500 groundwater monitoring wells at site. These locations are generally monitored for potentiometric elevation (i.e., groundwater level) and/or routine water chemistry analysis (i.e., electrical Cl, Na, K, Ca, Mg, CO3, SO4, HCO3, sum of ions, conductivity, hydrocarbon analysis and ionic balance) annually to every five years depending on the location and assessment of results as per the ATO. Baseline testing of new monitoring wells typically includes routine, trace metals and petroleum hydrocarbon water chemistry analyses for at least four sampling events. The 2023 Annual Environmental Report (AER) provides the most recent groundwater monitoring data.

Horizontal Pathway Monitoring

Water chemistry data is used in conjunction with EM31 and EM34 surveys to monitor horizontal brine migration. 1lorizontal migration in and around the mine facility is slow due to the confining properties associated with the native soils and operation of the composite drain system. These EM surveys are scheduled every five years with the next one for the main site scheduled for 2027 according to the ATO. EM31 and EM34 surveys in the vicinity of CS 31 to 41 are also collected on a five-year schedule with the next one scheduled for 2025 according to the ATO. The most recent EM31 and EM34 monitoring for the Site can be found in the AER.

Vertical Pathway Monitoring

Water chemistry data is used in conjunction with EM39 surveys to gauge vertical brine migration within selected on-site monitoring casings. Monitoring is completed on a recurring five-year schedule with the next planned for 2026. The most recent EM39 results can be found in the 2021 annual environmental report.

Surface Water Quality Monitoring

There arc very few surface water bodies in the vicinity of the Site. According to the ATO, Mosaic presently monitors six wetlands located north and east of the Site. Monitoring is completed semi-annually every two years. Surface water is analyzed for routine, trace metals and petroleum hydrocarbon parameters. The AER provides surface water monitoring results.

Soils Monitorin';

Soil sampling is completed as part of an on-going assessment program to gauge the impacts associated with saturated brines on native soils. Plume delineation through conventional drilling is completed on an as-required basis, which is typically implemented after the completion of a geo-physical survey. Soil sampling and associated testing is completed on an as required basis.

Air Emission Monitoring

Annual air emission tests are conducted for the processing plant dryer stacks in compliance with the Saskatchewan Industrial Source (Air Quality) Chapter of the Saskatchewan Environmental Code and the results are submitted to the MOE. The results indicated that all stacks were within the allowable emission limits, the maximum allowable dryer stack emission is 570 milligrams per dry reference cubic meter (mg/drm^3). More detail is provided in the AER.

Subsidence Monitoring

Monitoring of surface subsidence is conducted as per the regulatory requirements to determine surface subsidence induced by mining. These surveys assist in identifying any subsidence issues, prior to problems arising. Subsidence has not, nor is expected to significantly alter drainage patterns on surface, impact groundwater, or structurally impact any surface facilities in the Mining Area according to Mosaic.

Brine Pond Monitoring

TMA brine pond levels arc monitored to confirm that freeboard levels arc maintained as per the ATO and readings are provided on an annual basis to the MOE as part of the AER. Under the current pond configuration, the Belle Plaine mine site is al Notification Level I (Normal Freeboard or Maximum Operating Level exceeded) as per the new Saskatchewan Potash Industry Brine Pond Freeboard Guidelines and Reporting Requirements within the ATO. Mosaic has been submitting weekly Notification Level 1 communications to the MOE.

Mosaic is currently in the construction phase of a dyke improvement project which will achieve the new freeboard requirements and various progress updates have been provided to the MOE. This project is anticipated to be fully completed by summer 2025.

Prior to the dyke raise project reaching substantial completion, the pond was operating at Notification Level 1 (above the maximum operating level). It is anticipated the pond would exceed the maximum flood storage level and enter Notification Level 2 in the event that a design storm event occurred. Site stopped operating above the maximum operating level and subsequent Notification Level 1 reporting to the Ministry of Environment as of December 1,2024 as dyke raise component was complete. Smaller earthworks projects arc still to be completed in 2025 which would consider the project fully commissioned at that time.

The AER also provides the daily Production Pond freeboard readings.

Dvke Instrumentation and Monitoring

Visual inspections of the TMA dykes and ditches are completed as per the ATO. On an annual basis, an independent engineering llrm is contracted to conduct a comprehensive annual visual dyke inspection (AVDI) which is provided in the AER.

Dyke instrumentation consists of slope inclinometers, vibrating wire piezometers, standpipe piezometers and/or in-place inclinometers. As per the ATO. a minimum calculated Factor of Safety (FOS) equal to 1.5 is required for containment dykes. All segments of the TMA dykes meet the minimum FOS.

The dyke improvement project is scheduled for completion by summer 2025 and anticipated to maintain the required FOS for all dyke segments.

Tailings Pile Instrumentation and Monitoring

Tailings pile stability monitoring is conducted as per the ATO utilizing a variety of geotechnical instruments installed within and around the perimeter of the existing TMA. The instrumentation network is reviewed and inspected on an annual basis and recommendations for replacement, maintenance, or expansion are provided. Results of the monitoring are reviewed quarterly by a qualified third-party and included in the annual TMA report that is provided in the AER submitted to the MOE.

As per the ATO, a minimum calculated Factor of Safety (FOS) equal to 1.3 is required for all segments of the tailings pile. The calculated FOS for one segment of the tailings pile is below 1.3. Work to increase the FOS in these segments relies on operational factors and future tailings deposition. Mosaic has ceased spigotting within the areas which is thereby lowering the porewater pressures and improving the FOS over time. The Ministry of Environment has been updated through the AER. A summary of the calculated FOS for the tailings pile segments is provided in AER.

The geotechnical instrumentation network has experienced functional fluctuations over time, primarily due to periodic instrument malfunction. Maintenance and replacement of instrumentation is a routine and expected activity. Additional instrumentation has been recommended in the AER for the few' areas of the tailings pile that are not currently monitored and/or replacement of failed instrumentation. Mosaic is developing implementation plans to address the AER instrumentation recommendations.

General Waste Management

Mosaic's operations generate a variety of nonhazardous solid wastes, including domestic refuse, construction and demolition debris, and waste lubricants. Mosaic's waste management program provides assurance that all locations have a process in place to minimize waste generation, maximize recycling, and to ensure that waste management practices do not adversely affect the environment or health and safety of employees and the public. The AER provides a general summary of the site waste management program for the 2023 calendar year.

All hazardous substances and waste dangerous goods in the storage facilities listed in Appendix C of ATO are stored in accordance with *The Hazardous Substances Waste Dangerous Goods Regulations* according to the 2023 Annual Environmental Report. Generated wastes appear to be managed in compliance with applicable environmental legislation through facility inspections conducted by MOE, as well as monitoring and documentation policies instituted by Mosaic and internal/extcrnal audits.

17.3.3 Incidents and Releases

The AER provides a summary of releases, incidents, and reclamation activities along with a map for Reportable Spill Incidents (releases to secondary containment over a reportable regulatory quantity) and Reportable Discharge/Spill (releases to the environment over the reportable regulatory quantity). There was one Reportable Discharge/Spill that occurred at Belle Plaine in 2023. There was one Reportable Spill Incident at Belle Plaine in 2023.All reporting for these events was completed as required by site ATO.

17.4 Stockpiles

17.4.1 General Waste Management

The Site generates a variety of nonhazardous solid wastes, including domestic refuse, construction and demolition debris, and waste lubricants. The Site waste management program provides assurance a process in place to minimize waste generation, maximize recycling, and to ensure that waste management practices do not adversely affect the environment or health and safety of employees and the public.

17.5 Waste Rock Storage Facilities

Waste rock is not produced at the Site.

17.6 Tailings Storage Facility

17.6.1 Tailings Pile

Salt tailings are hydraulically transported (via brine slurry) to the TMA. The TMA consists of a salt pile, brine pond and control structures that limit migration of process brines from the TMA. The tailings placement on the pile utilizes spigots and loaders to form the pile. The brine used to transport the tailings is allowed to run off the tailings pile and

pond within the TMA. Brine is produced primarily by tailings dissolution during processing and, to a lesser extent, by precipitation falling on the salt tailings pile. The brine is stored in the northwest comer of the TMA, and in brine return channels along the toe of the tailings pile used to collect brine discharge from the tailings pile. Excess brine is disposed of by deep well injection into the Winnipeg and Deadwood formations in accordance with applicable regulatory requirements. Heavy construction equipment is used to move the salt tailings to maintain the desired tailings pile geometry. The configuration of the tailings pile is not anticipated to change significantly into the near future.

17.6.2 Brine Pond and Flood Containment Pond

The mining operation makes extensive use of ditches, concrete trenches, floor drains, and collection ponds to capture process fluids and site runoff for re-use in the process. The overall drainage collection is operated as a closed loop system. The brine pond is impounded by the perimeter dykes of the TMA. Brine pond levels or freeboard in the TMA are monitored as per the ATO.

17.6.3 Solids and Surface Brine Control

The primary brine and tailings control structures al the mine are the perimeter containment dykes. The TMA is surrounded by approximately three miles (five km) of containment dykes. A system of open ditches has been constructed around the perimeter of the TMA to collect seepage. The seepage water collected in the ditches flows by gravity into various brine collection ponds. The dyke toe and ditches are maintained to ensure ditch flow.

The stratigraphy at the site, generalized herein as approximately 15 ft. (five m) of Regina Clay underlain by 50 ft. (15 m) of glacial till, is reasonably consistent. Directly beneath the till is the Bearpaw Shale. The top layers of the shale have been significantly weathered and disturbed by glacial activity. The disturbed or fractured shale has a hydraulic conductivity that is approximately three orders of magnitude higher than the confining clayey layers. This unit represents the primary conduit for subsurface brine migration from the site, as confirmed by numerous site-specific studies. The disturbed layer thickness varies considerably from location to location but is typically 23 to 33 ft. (7 to 10 m). However, the level of disturbance typically decreases with depth until intact shale is encountered.

In 2006, a modified containment strategy was developed, which combined relief wells and a French drain (referred to as the Composite Drain) to form an integrated control structure. The relief wells were installed into the disturbed shale to facilitate the reduction in pore water pressure, which was driving subsurface brine migration. Brine is allowed to flow up from the disturbed shale (due to artesian conditions), through two inch diameter slotted PVC, and into the composite drain, where the brine is recovered and pumped back to the TMA.

The composite drain design combines relief wells and French drain technology to significantly reduce porewater pressures in the foundation soils. Composite drains are operated on the north, east and south side of the TMA.

17.6.4 Deep Well Injection

In 2023, the Site had three brine injection wells for disposal of excess brine into the Deadwood and Winnipeg formations (the deepest possible disposal horizon in Saskatchewan). The amount of brine injected is controlled to maintain brine levels in the TMA, provide sufficient flood storage, and provide brine for mining and production requirements. The total brine injection required per year varies with precipitation, evaporation, cavern development, and potash production.

Injection wells are operated and permitted as per the *Oil and Gas Conservation Act* (Saskatchewan) regulations thereunder, and applicable orders issued by the Minister of Energy and Resources. Minister's order MRO 852/95 and MRO 369/09 provides the licensing and conditions for SWD 20 and SWD 3 and 4, respectively, specifically to maintain well injection pressures below 19,300 kPa and 19,150 kPa (respectively).

17.7 Water Management

17.7.1 Freshwater

Mosaic recognizes that water is a critical natural resource that is essential to the sustainability of operations, as well as the communities and ecosystems in which they operate. Mosaic Belle Plaine monitors and evaluates water use to confirm it is minimized, and water recycling and reuse are being maximized according to Mosaic.

Water use, including source and allocated volumes, are subject to site-specific regulations and permits. Belle Plaine holds two licenses: E2-17155 and E2-9408 issued on May 1, 2012 for the operation of surface water works and pursuant to *The Saskatchewan Watershed Authority Act, 2005* (Saskatchewan). License No. E2-I7155 is for the intake at Buffalo Pound Lake, pump station and pipelines to supply freshwater owned and operated by Saskatchewan Water Corporation (SaskWater) while E2-9408 is for pipeline, booster pump station and reservoir tie-in issued to and operated by Mosaic. The Water Security Agency issued a water rights license (File no. E2/17155-1-001) for Mosaic to use up to a maximum of 23,500,000 m^3 annually from these systems; this license was issued on July 8, 2013 and is subject for review on April 1, 2031. General and specific conditions are provided in this license. Annual water usage is reported in the AER.

17.7.2 Runoff*

The AER states that the "plant site surface water runoff is collected in drainage ditch systems and ponds which are equipped to pump water into the TMA pond or into the processing plant where it can be reused in the solution mining process, excess brine is disposed of via the deep well disposal system. Cluster site drainage is designed so that runoff is collected in the brine and separation ponds to be used in the mining process."

17.7.3 Waste Water

The Site sewage is disposed of into the sewage digester facility. The treated sewage effluent is returned to the mining process.

17.8 Closure and Reclamation Considerations

The Site maintains a Decommissioning and Reclamation (D&R) Plan that is updated every five years. The 2021 D&R Plan was submitted and approved by the Ministry. Mosaic actively participates in the D&R Potash Technical Working Group which drives the plan updates and incorporation of best management practices across the potash industry in Saskatchewan. Mosaic maintains financial assurance to support its D&R obligations as required by *The Mineral Industry Environmental Protection Regulations 1996* (Saskatchewan). This financial assurance is in the form of a trust fund which was established by way of a trust agreement between Mosaic and the Province of Saskatchewan. The C$25M trust fund is intended to cover Mosaic's financial assurance requirements for all Mosaic Saskatchewan potash facilities. The evaluation of the performance of the fund to date will be undertaken as part of the 2026 reporting cycle, and the review will address any new liabilities that may affect the fund and the growth potential of the fund over the 100-year time frame.

17.8.1 Decommissioning and Reclamation Guidelines

Mosaic works with the Province of Saskatchewan to address and resolve environmental issues. The objective of the most recent decommissioning and reclamation plan was to meet the requirements of Section 16 of *The Mineral Industry Environmental Protection Regulations 1996* (Saskatchewan), with respect to review and resubmission of the D&R Plan and financial assurance fund once every five years.

In addition to meeting all applicable regulatory requirements. Mosaic is committed to the following Decommissioning and Reclamation (D&R) principles:

- Protect the environment.
- Return the mining area and processing plant areas to a state environment compatible with the surrounding land use (safe and stable environment) and tailings management area to an engineered saline wetland environment.
- Establish a means of measuring the effectiveness of the D&R plan.
- Provide an action plan with costs for the determination of a suitable Financial Assurance.

Assumptions

The development of the decommissioning, demolition, remediation and reclamation plan was based on the following:

- Decommissioning and demolition of all existing structures currently on the site,
- Decommissioning and reclamation of the mining area and processing plant to a stable environment compatible with the surrounding land use following mine closure, and
- Reclamation of the TMA to an engineered saline wetland environment following TMA decommissioning.

Monitoring, Inspections, Evaluation and Reporting

Monitoring is expected to be conducted during the course of the decommissioning and reclamation, with monitoring results provided on an agreed upon timeline with the MOE. Inspections of tailings pile dissolution and dyke integrity arc expected to be conducted by Mosaic on an agreed upon schedule and scope with the MOE. Soils, surface water and groundwater monitoring and acceptance criteria are expected to be developed through discussions with the MOE.

17.8.2 Site Investigation and Reclamation Plan

Mining Area

A total of 43 Cluster sites have been constructed or arc under development in the Mining Area. As of December 31, 2023, Cluster Sites 1 through 25 were in various stages of decommissioning, remediation, or investigation. Cluster Sites 26 through 42 are operational. The proposed number ofcluster sites for future operations will be based on the number of existing production wells and the number of production wells to be installed at the future cluster sites.

Environmental site assessments will be conducted to assess the soil and groundwater impacts associated with the current and historical operations at each cluster site. A sampling rationale plan is expected to be developed based on the historical use of the site to determine substances of potential concern. Primary substances of potential concern will include petroleum hydrocarbons and chlorides.

Corrective action plans will follow the environmental site assessment to reclaim the site to a stable environment compatible with the surrounding land use. Following the corrective actions. Mosaic is then expected to seek to be released from additional environmental responsibility at the site.

An environmental monitoring program approved by the MOE is expected to be conducted during the course of reclamation to determine the effectiveness of the reclamation process.

Processing Plant Site

On-Site Landfill

Il's assumed that an on-site landfill will be designed, constructed and used for the disposal of materials during the demolition activities. Under the assumption the landfill is a non-enginccrcd facility, waste disposal wilt be limited to inert non-recyclable, non-hazardous materials. A recycle station is also projected to be established during demolition activities to recover recyclable materials (i.e., metal and corrugated metals panels, jacketed cable, etc.).

Processing Plant / Other Buildings

Facilities associated with the processing plant site and ancillary buildings are expected to be decommissioned. Prior to commencing demolition, the site will be secured. Hazardous materials including fuels, lubricants, hydraulic oil.

reagents, chemicals, etc., arc expected to be inventoried and removed by an environmental contractor licensed in the management and disposal of these materials.

Asbestos containing materials encountered during demolition are expected to be managed in accordance with standard industry practices under the direction of a licensed asbestos abatement contractor. Asbestos waste is expected to be hauled to an approved off-site landfill facility for disposal.

Buildings are expected to be demolished using a combination of mechanical demolition, hydraulic shearing of structural steel and felling demolition techniques. Deconstruction or controlled demolition may be required during the early stages of demolition to remove salvageable equipment and to remove remaining asbestos containing materials and recyclable materials. The steel structures may be sheared and recycled as scrap.

Miscellaneous building debris including fiberglass panels, masonry, wood, insulation, electrical cable, equipment and instrumentation, etc. is expected to be removed and hauled to the designatedrecycle station with all non-recyclable non-hazardous materials hauled to an on-site landfill for disposal.

Slab-on-grade and below-grade concrete floors are expected to be perforated or cracked to ensure permeability and left in-place. Where applicable, foundation walls may be folded into basements, sumps and/or tunnels and left in-place. Excavations arc expected to be backfilled with fill soils from the site and compacted to ensure that voids in the backfill do not occur.

Miscellaneous Surface Infrastructure

Mine site owned near-surface pipelines not required during the reclamation activities are expected to be purged and capped at their existing depths. Buried power and communication lines are expected to be de-energized, isolated and left in place.

Third-party utilities arc expected to remain in service during the decommissioning and reclamation activities to support electrical power, heating and communication needs during this time. Where applicable, water utilities will be disconnected at the property line. Following completion of the saline wetland development, a component of the reclamation activities, it is anticipated that the remaining third-party utilities will be disconnected by the appropriate utility provider at the mine site property line and left in place.

Reservoir and Lagoon

The Site does not operate either a reservoir or wastewater lagoon; however, there is a storm water pond and evaporation pond. The storm water pond is expected to be decommissioned by pumping water from the pond to the TMA, excavating the upper 1.0 m of the side slopes and floor, hauling the excavated soil to the TMA and backfilling to grade. The ponds are expected to be graded and seeded as part of the mine site's reclamation activities. The evaporation ponds are projected to naturally develop as a wetland.

Regulated Storage Vessels & Materials

An application to decommission HSWDG vessels regulated under the ATO is expected to be submitted to the MOE prior to any decommissioning activities. Upon approval, any remaining products in the vessels may be removed and the vessels purged, cleaned and made inert. Any residual product will likely either be recycled or disposed of in accordance with the applicable regulations by an appropriately qualified person or contractor. The vessels may be reused or destroyed and recycled as scrap under the direction of an approved environmental contractor.

Waste Management Systems

A hazardous materials storage compound is located on the site. Domestic and hazardous waste is expected to be hauled off-site to an approved disposal site. The existing facility is expected to be assessed as part of the environmental site assessment to determine the presence or absence of impacts. The processing plant site reclamation plan may include actions to remediate the areas to the applicable guidelines.

Scrap yard areas are located at the processing plant site. Existing materials may either be recycled or returned to the appropriate suppliers. These areas are expected to be assessed as part of the processing plant site investigation in order to determine the presence or absence of impacts. The processing plant site reclamation plan may include actions to remediate the areas to the applicable guidelines.

Roads, Rail, Grounds and Supporting Infrastructure

Roads, including access, operations and parking lots not required for post-decommissioning siteactivities, are expected to be removed and contoured to meet site grades as part of processing plant site reclamation activities. Topsoil is expected to be placed where required to support vegetation.

Mine owned rail is expected to be recycled as scrap and railway ties recycled. The remaining roadbed may be graded and contoured to meet site grades as part of processing plant site reclamation activities. The remaining rail facilities are expected to be decommissioned by the owner of the facilities.

Brine Injection Wells

The mine site operates three brine injection wells and pump houses to dispose of excess brine. One well and pump house is expected to be decommissioned as part of the processing plant demolition and decommissioning. Two injection wells and associated pump houses are expected to remain operational during the dissolution of the tailings pile and early stages of the TMA reclamation. Once all brine disposal is considered complete, the wells are expected to be decommissioned in accordance with the Saskatchewan Ministry of Energy and Resources and the pump houses demolished in accordance with the D&R Plan.

The Technical Working Group will continue to work with the Saskatchewan Ministry of Energy and Resources on licensing brine injection wells, reporting, monitoring, maintenance and well replacement.

Environmental Monitoring Wells

The mine site currently maintains approximately 500 environmental monitoring wells. The environmental monitoring well system is expected to be modified on an ongoing basis to reflect changing conditions encountered during the processing plant site reclamation, dissolution of the tailings pile and reclamation of the TMA as an engineered saline wetland environment.

Fifty new environmental monitoring wells are expected to be installed across the processing plant site as part of the processing plant environmental site assessment. The monitoring wells is expected to be incorporated into the overall mine site monitoring program. The wells will be decommissioned after 15 years, assuming that the processing plant site meets applicable reclamation criteria established by the MOE.

it is assumed that 70% of the wells associated with the TMA will be decommissioned at processing plant closure with the remaining wells repurposed to track the effectiveness of the decommissioning and reclamation strategies. The remaining 30% of the wells arc projected to be decommissioned after mine site closure following approval from the MOE that the reclamation criterion for the engineered saline wetland has been achieved.

The wells will be decommissioned in accordance with applicable MOE guidelines.

Tailings Management Area

Decommissioning Sequence

The general decommissioning sequence prior to the development of the TMA as an engineered saline wetland is expected to be as follows:

- Production ceases
- Dissolution of tailings continues
- Brine injection continues
- Subsurface seepage control operation and maintenance continues
- Dyke maintenance continues
- Tailing salts all dissolve
- Seepage/run-off collcctcd/injcctcd
- Salinity reduced - injection discontinued
- Injection pumphouse demolished and wells decommissioned

- Cooling/reclaim brine pumphouse decommissioned
- Drainage ditches and seepage control systems decommissioned

Tailings Pile

The Belle Plaine TMA consists of a tailings pile and a brine pond and covers an area of 217 hectares. The salt inventory in the Belle Plaine TMA is 57,100,000 tonnes of salt based on the 31 December 2023 mass salt balance. The average annual salt addition to the TMA is projected to equal 527,104 tonnes per year for use in estimating the final pile configuration at end of mine life. At mine closure, both active and passive dissolution strategics will be used to dissolve the salt pile. The duration associated with salt dissolution is based on pile configuration and inventory at time of closure. Following dissolution of the TMA, an engineered saline wetland will be constructed. The Cooling Ponds cover an area of 94 hectares and will be included as part of the TMA at mine closure, to assist with the catchment of freshwater for acceleration of pile dissolution.

17.9 Permitting

All Mosaic mines and processing plants operate pursuant to federal, provincial and local environmental regulations. Accordingly, permits, licenses and approvals are obtained specifically to each site, based on project specific requirements. Mosaic also has routine interactions with government officials and agencies related to agency inspections, permitting and other environmental matters.

17.10 Social Considerations, Plans, Negotiations and Agreements

When undertaking a new development. Mosaic also adheres to provisions of the provincial and federal environmental assessment regulatory requirements, which include a review of socio-economic considerations. This information is included in a comprehensive report that is subsequently provided to the appropriate levels of government for review and approval prior to development.

18.0 Capital and Operating Costs

18.1 Capital Cost Estimates

18.1.1 Basis of Estimate

The basis of estimate used to estimate the Belle Plaine Potash Facility capital expenditures is as follows:

- The target accuracy level is at a pre-feasibility level, -25% to +25%.
- The estimate was prepared in CS and converted to USS al an exchange rate of I USS - 1,32 C$ or I CS = 0.76 USS.
- The estimates have been compiled and organized by asset and aligned with re-build.Teplacement schedules and fixed asset replacement and refurbishment schedules.
- Mine capital costs include only capital expenditures related to the extraction of mineral reserves. Expenditures are classified as mine capital if they relate to physical assets, exceed CS10,000 or have a minimum expected useful life of two years.
- The mine capital costs are broken into two major categories: Sustaining and Expansion. Sustaining capital is defined as “ongoing” capital expenditures required for maintaining current production levels while project capital expands production capacity.
- Sustaining capital cost forecasts arc based on forecasted mine development and construction needs, mobile equipment re-build/replacement schedules and fixed asset replacement and refurbishment schedules.
- Processing plant sustaining capital estimates have been based on historical costs. Projects that fall under this category' are based on scheduled maintenance and rebuilds and the Asset Management Framework system, that is used to assess the condition and associated risks of fixed assets.
- Ongoing Mine Area capital costs for the Belle Plaine site are based on the sustaining mine development plan to maintain the facility at its current capacity. These costs are a makeup of routine infrastructure such as pipelines, cluster sites and cavern development. These costs are included in the LOM Plan at its current capacity.
- Expansion capital is based on a FEL 3 engineering study completed in 2013 for a full-scale plant expansion. This study was conducted using the Mosaic capital process management system (CPM) and estimated using an engineering-procurement-construction-management (EPCM) approach and team. The estimate is inclusive of all Project indirects and owner costs as these costs are captured in the historical cost analysis used to prepare the estimate.
- Mobile equipment that is leased is included in operating costs. Lease periods typically range from two to five years. Lease costs are charged to capital while the equipment is doing capital work. Purchased equipment is allotted for in the capital plan. Mobile equipment costs are based on supplier quotations and/or historical costs.
- The Regulatory capital forecast includes capital for a TMA dyke raise and the Refinery NOx boiler emission modifications. The boiler project is scheduled for completion in 2026.
- Provincial Sales Tax (PST) has been included.
- Freight and installation were included.

18.1.2 Exclusions for the Capital Cost Estimate

The following has not been included in the Belle Plaine Potash Facility capital cost estimate.

- Goods and Services Tax (GST).
- Foreign currency exchange fluctuations.
- Schedule delays and associated costs, such as those caused by unexpected conditions and labor disputes.
- Inflation and escalation.
- Capital expenditures related to fire, flood and severe weather events.
- General and Administrative are not allocated to capital projects at Mosaic and have not been included in this cost estimate.

18.1.3 Capital Cost Estimate

1lie capital cost estimates tor the Belle Blaine LUM plan are summarized by category in Iable 18-1. 1he total capital for the 2024 LOM plan (2025 to 2084) is estimated at US $3,453M. Historic costs from 2019 to 2023 and a forecast for 2024 are included.

Table 18-1: Historical and LOM Plan Sustaining and Project Capital

Year	Status	Mine Area M USS	Processing Plant MUSS	Other MUSS	Total M USS
2020	Actual	32.6	25.1	17.8	75.5
2021	Actual	32.0	27.3	11.1	70.3
2022	Actual	25.5	26.0	36.6	88.1
2023	Actual	31.6	21.3	29.0	82.0
2024	Feast.	19.7	19.0	33.0	71.7
2025	Plan	22.0	22.0	20.0	64.0
2026	Plan	21.5	21.6	10.9	54.0
2027	Plan	21.1	21.2	10.7	53.0
2028	Plan	21.9	22.0	11.1	55.0
2029	Plan	31.6	20.1	5.9	57.6
2030 to 2084	Plan	1.739.3	1.105.0	325.1	3,169.4
LOM Total	**Plan**	1,857.5	1.211.9	383.7	3,453.1

18.2 Operating Cost Estimates

18.2.1 Basis of Estimate

The basis of estimate used for the Belle Plaine Potash Facility operating costs are as follows:

- The estimate was prepared in Canadian dollars and converted to USA dollars at an exchange rate of 1 USS = 1.32 C$.
- Operating costs do not include inflation and are in today's dollars over the LOM plan.
- Historical costs are used as the basis for mining operating forecasts and adjustments are made by using a variable cost per tonne. The accuracy of the operating costs is within the required parameters for a pre-feasibility level estimate, -25% to +25%.
- The latest sales and market prices are estimated for the next five years and then projected over the remaining LOM plan for royalties, natural gas, and other goods and services.
- Royalties are tied to sales prices as indicated in Section 16.
- Natural gas prices are based off short and long-term natural gas market price projections.
- Mosaic and contractor labor headcount complement are assumed to remain relatively constant and fixed in total over the LOM plan.
- Other operating costs consist of functional and administrative and plant costs. These costs are assumed to remain relatively constant compared to the 2024 forecast.
- Depreciation, depletion and accretion are excluded from the operating cost estimates listed below.
- Freight charges are excluded from the operating costs and are shown net of the sales price.

18.2.2 Mine Operating Costs

Historical costs are used as the basis for mine operating cost forecasts, estimated using a long-term cost model. This model accounts for the impact of varying production rates and labor components.

The Belle Plaine costs are grouped in the following categories:

- Mining cash costs include the mining area operating, maintenance and direct overhead costs and transportation to the Refinery but exclude the mine development costs such as pipeline infrastructure, cluster sites and cavern development costs, that are considered capital.
- Processing cash costs include the Refinery and loading cash costs applied to the mineral reserves mined throughout the life of mine plan. The cash costs include variable operating and fixed maintenance and direct overhead costs that directly relate processing the ore to its finished product and storing it in the Belle Plaine warehouse.
- Other Operating Costs are central and functional overhead allocated costs, that include site warehousing, purchasing, accounting, information technology, environmental and safety, mechanical integrity and asset reliability, and quality control labs.
- Resource taxes, royalties and other Government levies or interests include Crown and Freehold royalty payments, mineral lease payments and Canadian resource taxes. Income taxes are excluded.

The total operating costs supporting the 2024 LOM plan are estimated for 2025 to 2084 at US $13,893M (Table 18-2).

Table 18-2: Historical and LOM Plan Cash Costs

Year	Status	Production M tonnes	Mining and Processing Cash Costs M USS	Other Operating Costs M USS	Resource Taxes, Royalties and Other Government Levies or Interests M USS	Total Site Cash Costs of Production M USS
2020	Actual	2.8	119	23	100	242
2021	Actual	2.8	137	21	144	302
2022	Actual	2.8	219	16	406	640
2023	Actual	2.8	173	16	190	379
2024	Feast.	3.0	152	15	126	293
2025	Plan	3.0	182	18	34	234
2026	Plan	3.0	183	21	34	238
2027	Plan	3.0	185	21	34	240
2028	Plan	2.9	184	21	33	239
2029	Plan	2.9	186	21	33	240
2030 to 2084	Plan	142.9	9.909	1,153	1.640	12,702
Total LOM	Plan	157.7	10,829	1,254	1,810	13,893

19.0 Economic Analysis

19.1 Methodology Used

For the Economic analysis, the price needed to get an after-tax net present value equal to zero (USD $0) was calculated. Such price identified, if met, will ensure a return on a present value equivalent to the current cost of capital. This is referred to as the "Internal Transfer Price" or ITP.

If ITP < LOM price, then the operation is profitable. The greater the difference between those two values the more profitable it is.

If ITP > LOM price, then the operation is not profitable

The ITP and LOM price do not influence each other, they are simply two values used for comparison. ITP depends on actual costs and LOM price depends on market conditions (Refer to Section 16.0)

19.2 Financial Model Inputs, Parameters and Assumptions

The financial model treats 2025 as the base year cash flows and does not discount these results. The model projects the cashflows generated from the Belle Plaine Potash Facility from the base year to the end of assumed mineral reserve mine life in 2084. The sum of the discounted cashflows reflects the discounted value as of December 31, 2024.

The following outlines the input, parameters and assumptions used in the financial model.

- The mineral reserves included in the financial model is 738M tons (632M tonnes). The mineral reserve life is estimated to extend to Year 2084 based on the 2024 LOM plan. The LOM plan assumes that the Mining area begins a production ramp down approximately 20 years prior to end of mine life whereby Mining area production drilling will cease. The refinery will move to single line evaporation as flow capability from the Mining area declines, and production tonnes will reduce accordingly.
- The planned production life based on mineral reserves is from 2025 to 2084.
- The LOM plan potash prices and exchange rates arc discussed in Section 16 and applied in the financial model.
- Total capital and sustaining costs for the LOM plan is estimated at US S3.453M (Table 18-1). This includes all the sustaining capital required to maintain the equipment and infrastructure and to support continuing operations through to 2084.
- The operating costs reflect costs for mining, refining and processing, sales, general and administrative costs as outlined in Section 18. (Table 18-2)
- Royalties arc estimated using the royalty structure discussed in Section 3.2.4. They are impacted by the quantity of tonnes produced as well as the assumed sales price in each period.

  The 2024 to 2084 royalty cost assumptions use 3% of the average sales price per the cashflow analysis divided by 62.59%, the K<) factor, times the K>O production tonnes times the percentage of crown land assumed to be produced and mined over the LOM plan.
- The taxes in the cash flow model include the following:
  - Mosaic pays Canadian resource taxes consisting of the Potash Production Tax and resource surcharge. The Potash Production Tax is a Saskatchewan provincial tax on potash production and consists of a base payment and a profits tax. Mosaic also pays a resource surcharge equal to 3% of the value of resource sales from the Saskatchewan potash facilities.
  - Belle Plaine is subject to income tax at the federal and provincial level on its taxable income. The total tax rate is 27% and consists of 15% federal tax rate, and 12% provincial tax rate.

  - Belle Plaine is treated as a Foreign Branch in the U.S. Consolidated Tax Return that means Belle Plaine is taxed in the local jurisdiction (Canada) and then also taxed on the U.S. Tax Return. To avoid double taxation, the U.S. tax system allows a company to claim a Foreign Tax Credit to offset U.S. taxes payable.
  - A 6% Saskatchewan provincial sales tax (PST) applies to most goods and services acquired by Belle Plaine. The PST is not a recoverable tax and is charged to the corresponding expense account of the good or service acquired. The economic cash flows over the LOM plan assumes the Belle Plaine operating, maintenance supplies and contract service costs that are normally charged PST will continue.
- The discounted cashflow analysis applies end of year discounting and uses a discount rate of 10.6%, which reflects Mosaic's weighted average cost of capital in Canada.

19.3 Economic Analysis

The net present value analysis reflects that there is significant economic value associated with mining, refining and selling the potash mineral reserves at Belle Plaine, given the economic assumptions and operating parameters considered. The financial model reflects an after-tax Internal transfer price associated with a zero Net Present Value of SI08 USD/Tonne

Table 19-1 outlines the results of the economic analysis of the mineral reserves in the LOM plan.

Table 19-2 shows the annualized cash flow for the 2024 LOM plan.

Table 19-11: Cash Flow Analysis

SK1300 -Belle Plaine		2025	2026	2027	2028	2029	2030 - 2039	2040 - 2049	2050 - 2059	2060 - 2069	20/0 - 20/9	2080 - 2084	2025-2084 LOM
Assumptions	Sales Price ($USD / Tonne)	$ 108	$ 108	$ 108	$ 108	$ 108	S 108	S 108	S 108	S 108	S 108	S 108	$ 108
	Mined Tonnes (000's M Tonnes)	12 465	12 020	11 685	12 056	12.365	124,493	124,810	124.665	119 431	57.379	21 591	632 960
	Finished Ptodutton Volume (000's M Tonnes)	2 994	2,994	2 994	2.903	2 903	29.892	29,937	29.937	29.937	16.742	6 450	157.681
	FXRate (CAD to USD)	0 76	0 76	076	076	0 76	0 76	0.76	0 76	0 76	0 76	0 76	0.76
	Discount Rate	10 6%	10 6%	10 6%	10 6%	10 6%	10.6%	10 6%	10 6%	10 6%	10 6%	106%	106%
Revenue	Potash Revenue	322	322	322	313	313	3220	3225	3225	3 225	1 803	695	16 986
	Sales Revenue (FOB Mine)	322	322	322	313	313	3.220	3.225	3.225	3.225	1.B03	695	16.986
Costs of Production	Mining & Processing	182	183	185	184	186	1.878	1.879	1.879	1.879	1.620	[illegible]	10.829
	Other Operating Costs	18	21	21	21	21	210	210	210	210	210	105	1254
	Resource Taxes, Royalties and Other Government Levies or Interests	34	34	34	33	33	343	344	344	344	192	74	1.810
	Cash Costs of Production	234	238	240	239	240	2.431	2.433	2,433	2.433	2.022	M1	13.893
Allocated Costs	Other Costs	20	19	19	19	20	195	195	195	195	195	98	1.172
Income Taxes	Income Tax	0	0	0	0	0	1	1	1	1	-	-	5
ARO	Reclarnaton -and Closure	2	3	2	1	2	22	26	15	10	11	6	99
Capital Expenditures	Capital Expenditures	64	54	53	55	58	576	576	576	576	576	288	3.453
Cash Flow	Annual Net Cash Flow	3	[illegible]	•	121	m	(6)	16)	4	9	(1.001)	<648)	(1.6361

Economic VlabiBty	Mt Prosont Vaiuo	[0)]

19.4 Sensitivity Analysis

A sensitivity analysis is shown in the Figure 19-1 utilizing the following factors.

- Potash commodity price
- Foreign exchange rate
- Total operating cost
- Total capital cost

The sensitivity analysis of the 2024 LOM plan is presented in Figure 19-1. The 2024 LOM plan NPV is most sensitive to the potash price followed by foreign exchange rate, operating costs and capital costs.

- The commodity price sensitivity tests the impact that a 20% change would have on sales revenue along with the resulting expense impacts of royalties, resource taxes and income taxes. A 20% decrease in commodity price will generate a significant positive NPV.
- The exchange rate sensitivity indicates that a +/-20% variation in the exchange rate will yield a positive NPV.
- If the operating costs were to increase 20% from those currently estimated, the Facility will remain viable, yielding a positive NPV.
- The capital spending sensitivity assumes a 20% change to annual capital spending requirements each year. If the capital costs were to increase 20% from those currently estimated, the Facility will remain viable, yielding a positive NPV.

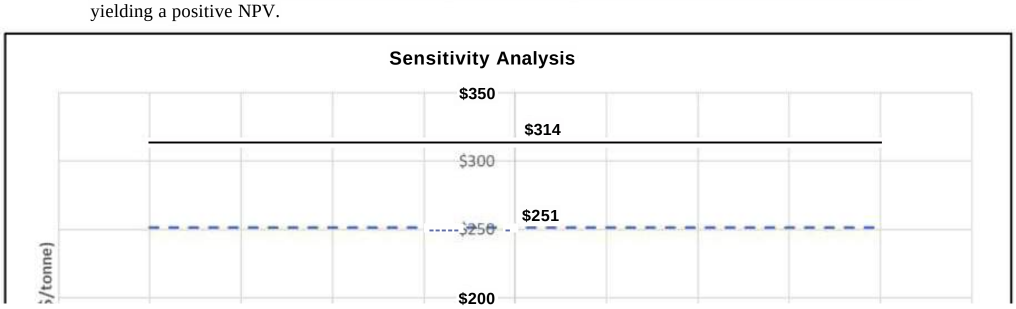


Figure 19-1: Sensitivity Results on NPV

20.0 Adjacent Properties

No information from adjacent properties has been included in the preceding sections of this Report.

All information used and included in this report is the result of geology, engineering, mining, environmental and processing etc. activities completed on the Belle Plaine property.

The following information regarding the K+S Potash Canada Bethune Potash mine was obtained from a Mining Technology e-Newsletter (https:7www.mining-technology.com. projects/legacy-potash-project-saskatchewan.[1]) and the K+S 2020 Annual Report:

> The K+S Potash Canada Bethune Potash mine (formerly the Legacy Potash Project) is located adjacent to the Belle Plaine Potash Facility (Figure 20-1). This is the first solution mine to be built in Saskatchewan in approximately 40 years.
>
> Construction of the potash mine began in June 2012. The mine opened in May 2017 and produced the first tonnes of marketable potash in June 2017. The Bethune potash mine has an estimated mine life of more than 55 years and creates more than 400 permanent jobs.
>
> Estimates are reported in the 2023 K+S Annual Report in finished product tons. The Bethune Potash mine estimates 220M tons (200M tonnes) of mineral reserves and 992M tons (900M tonnes) of indicated and inferred mineral resource at an average grade of 26% KC1(16.4% K2O).
>
> In 2024, approximately 2M tonnes of finished product was produced for sale. Further expansion to 4.0M tons/year (3.6M tonnes/year) of potassium chloride is expected after an initial ten-year period.
>
> Potash products from the mine arc transported by Canadian Pacific rail to the bulk handling terminal in Port Moody, British Columbia. Pacific Coast Terminals is responsible for the handling and storage of the potash products.

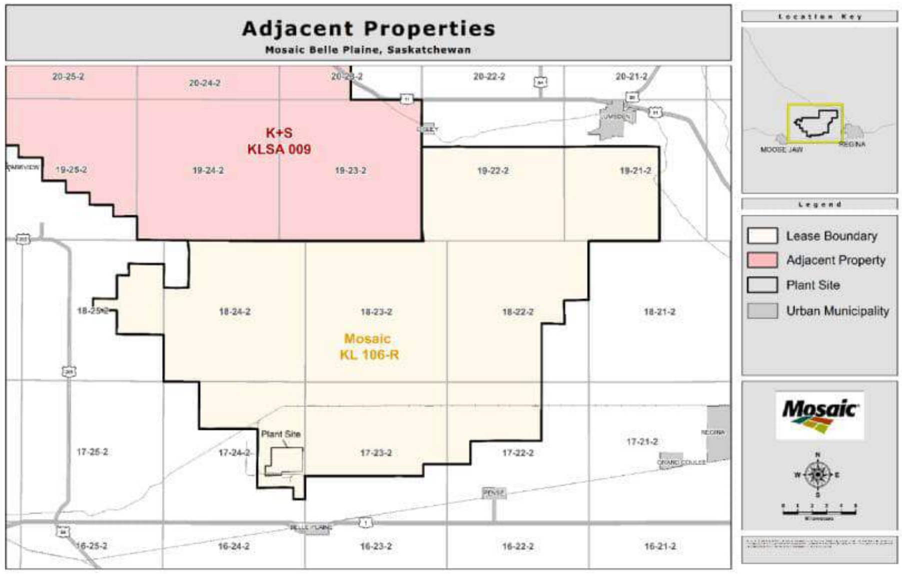


Figure 20-1: Adjacent Properties

21.0 Other Relevant Data and Information

All data relevant to the estimation of the Belle Plaine mineral resources and mineral reserves has been included in the sections of this Technical Report Summary.

22.0 Interpretation and Conclusions

22.1 Mineral Resources

The following is a summary of the key interpretations and conclusions relating to the Belle Plaine mineral resource estimates:

- The geologist has a strong understanding of the lithology, stratigraphy and potash mineralization and deems the available data appropriate to support the geological interpretation for this style of mineralization.
- The geology and deposit related knowledge have been considered and applied in support of exploration, interpretation, and mineral resource estimation processes used.
- Exploration data collection methods follow industry standard practices that were in place at the time of the various past and current exploration campaigns.
- Data that does not meet the standards for reliability are removed from the mineral resource estimation process.
- The geologist has conducted appropriate internal data verification and data validation work on historical and recent exploration data to ensure the geological information is reliable, representative, and free of material errors or omissions.
- The sample preparation, security, and analytical procedures that have been applied are suitable to support mineral resource and mineral reserve estimation.
- The validated geological information is considered reliable, representative and fit for purpose in developing a geological model and for mineral resource estimates, as well as for use in other modifying factors studies including mine design, scheduling and mineral reserve estimation.
- The mining history of the Belle Plaine Potash Facility combined with the understanding of the continuity of the potash mineralization, supports the establishment of reasonable prospects for economic extraction for the mineral resource estimates.
- The Belle Plaine Potash Facility is a well-established operation that has been in production since 1964. There are no issues that require further work relating to relevant technical and economic factors that are likely to influence the prospect of economic extraction.

- The classification of mineral resources into confidence classes measured, indicated, and inferred considers geological confidence, uncertainty and data distribution.

Risks or uncertainties associated with the Belle Plaine mineral resource estimates arc:

- There are a number of uncertainties (Section 11.9) that exist at Belle Plaine that could impact the mineral resource estimates. They have been identified as areas of future process improvements.
- The information supporting the mineral resources and mineral reserves consists of drilling data from 1960 through to as recent as 2020, core and geophysical logging results and seismic surveys. This data includes historical information that was collected prior to current standards. However, the uncertainty and risk associated with this historic data has been mitigated through the addition of modern drilling that has been subjected to strict QA/QC protocols that met or exceeded the industry best practices at the time.
- The exploration data collection methods and results arc documented. A fully updated potash database to include all historical and recent exploration campaigns is recommended to allow for improved data retention standards.
- Historically, there has not been external third-party data verification and mineral resource estimation audits completed.

22.2 Mineral Reserves

The following is a summary of the key interpretations and conclusions relating to the mineral reserve estimates and supporting modifying factors.

- The Belle Plaine Potash Facility is a well-established operation. The mineralization, mining, processing, and environmental aspects of the facility are very well understood. The operational and technical knowledge has been appropriately used in the development of the LOM plan and mineral reserve estimates.
- Historical operational data and observations have been adequately documented.
- The mineral reserve estimate has been prepared to comply with all disclosure standards for mineral reserves under S-K 1300 reporting requirements.
- The mineral reserve estimates are based on a 2024 LOM plan, employing practical methods of solution mining applicable to the type of mineralization and arc demonstrated to be economic through a supporting economic evaluation.
- Belle Plaine has the appropriate equipment for solution mining and has identified and scheduled the capital spending required to provide the required equipment and capacity, and labor staffing to support the mineral reserves.
- Process recovery relics upon standardized metallurgical and analytical testing. The metallurgical and analytical testing and historical data is adequate for the estimation of recovery factors supporting the mineral reserves.
- There is currently sufficient infrastructure in place to support the mining and processing activities and mineral reserves at Belle Plaine.
- The management of all environmental aspects, permitting and social considerations at all Mosaic facilities is guided by Mosaic's Environmental, Health and Safety Policy, the Mosaic Management System Program and Procedures, and current regulatory requirements. Mosaic understands the sustainability of their business and communities are indelibly linked and strives to be a thoughtful and engaged neighbor who invests carefully and generously and seeks long-term partnerships with organizations that are making a difference.
- Mosaic has monitoring plans in place to evaluate the environmental performance to standards as prescribed by applicable law and permit conditions.
- Closure plans are completed, representing current land disturbance conditions and anticipated land disturbance conditions at the end of the LOM plan.
- The economic results and sensitivity analysis for the mineral reserves indicates that the Belle Plaine Potash Facility is a robust potash producing facility that can withstand 20% variations in the key cash flow components.
- The potential new technology and innovations that could come to bear on this facility are difficult to conceptualize. The technological and process efficiencies that are being targeted by the site have not been factored into this analysis. The benefit of achieving these targets along with the operational efficiencies that will be enabled by new[r] technologies in the years that follow', create potential for significant upside to the cashflows presented.

Risks or uncertainties associated with the Belle Plaine mineral reserve estimates are:

- There are a number of uncertainties (Section 12.5) that exist at Belle Plaine that could impact the mineral reserve estimates. They have been identified as areas of future process improvements.
- A possible future uncertainty to the economic analysis is the unknown impact that the carbon tax policy will have on the Belle Plaine Potash Facility. At the present time, the future direct and indirect impacts of carbon taxation in Canada are still evolving and subject to further discussion and review' before accurate long-term forecasts arc possible.

- There is a risk and opportunity associated with the variation of pricing on product sale prices and the prices of operational and capital materials and services. The sensitivity analysis is provided to help the reader understand the impact that this risk could have on net present value.
- Over the lengthy time span there is risk that the amount of annually invested capital required to sustain the plant could fluctuate above the levels estimated.

23.0 Recommendations

The following recommendations for additional work are focused on improving and maintaining important processes and ensuring execution of the 2024 LOM plan.

- The Land and Minerals Strategy will continue to develop and align with the LOM plan to ensure timely acquisition of Mineral Rights to support the mineral resource and mineral reserve estimates and LOM plan.
- Mosaic will continue to investigate and consider new innovations in mining and processing technology.
- Additional density information will be obtained from future core drilling campaigns.
- Additional 3D seismic data should be collected and processed in strategic areas to ensure the continuity of available data for mine planning.

- Mosaic will continue to update and maintain the geological databases.
- A thorough production reconciliation process will be considered to further improve and support the mineral resource and mineral reserve estimates.
- A comparison of company owned gamma ray tools with full suite log data collected by a third-party well logging company is recommended to provide additional review of the GREC calculation applied at Belle Plaine. All future coring should be assayed to confirm that the GREC calculation applied at Belle Plaine is sufficient to estimate the mineral reserves and mineral resources.
- The seismic model supporting the mineral resource and mineral reserve estimates will continue to be developed and improved as seismic data collection and interpretation improves.

24.0 References

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25.0 Reliance on Information Provided by the Registrant

Table 25-1 outlines the information provided from the Registrant (Mosaic) for use by the QPs in the writing of the Belle Plaine Potash Facility TRS.

Table 25-1: Information Provided by the Registrant

QP Name	TRS Section	Subjects
Jarid Hancock	16. Market Studies	Marketing information including commodity price and exchange rates
Jarid Hancock	18. Capital and Operating Costs 19. Economic Analysis	Royalties and other accommodations; Taxes and other governmental factors; Mine closure