

RHODES MARSH LITHIUM BRINE PROJECT

Mineral County, Nevada

NI 43-101 Technical Report

**North Block: 38.30496, -118.06062 South Block: 38.2761, -118.05865
(UTM NAD83, Zone 11 North Block: 407099mE, 4238247mN South Block: 407416mE,
4237070mN)**



Prepared for

ALCHEMIST MINING INCORPORATED

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Permit to Practice: 1000498

Table of Contents

1	Summary	1
1.1	Project Location, Description and Ownership.....	1
1.2	History.....	4
1.3	Development and Regulatory Status.....	7
1.4	Geology, Alteration and Mineralization.....	7
1.5	Exploration.....	7
1.6	Sample Preparation, Security and Analysis.....	8
1.7	Data Verification.....	8
1.8	Conclusions and Recommendations.....	8
1.9	Summary of Risks.....	9
2	Introduction	10
2.1	Purpose of Report and Terms of Reference.....	10
2.2	Sources of Information.....	10
2.3	Site visits and Scope of Personal Inspections.....	10
3	Reliance on Other Experts	10
4	Property Description and Location	11
4.1	Location and Description.....	11
4.2	Tenure and Ownership.....	11
4.2.1	Tenure.....	11
4.2.2	Ownership.....	12
4.3	Permitting, Environmental Liabilities and Other Issues.....	13
4.4	State and Local Taxes and Royalties.....	13
4.5	Surface Rights.....	14
4.6	Encumbrances and Risks.....	14
5	Accessibility, Climate, Local Resources, Infrastructure and Physiography	15
5.1	Access.....	15
5.2	Climate.....	15
5.3	Property Infrastructure.....	15
5.4	Physiography and Vegetation.....	16
5.5	Flora and Fauna.....	16
5.6	Surface Rights and Local Resources.....	16
6	History	17
6.1	Historic Mining Activities.....	17
6.2	Ownership History of the Rhodes Marsh Project.....	17
6.3	Exploration and Development Work Undertaken.....	18
7	Geological Setting and Mineralization	18
7.1	Regional Geological Setting.....	18
7.1.1	Golconda Terrane.....	18
7.1.2	Luning Formation.....	19
7.1.3	Dunlap Formation.....	19
7.1.4	Gold Range Assemblage.....	19
7.1.5	Ultramafic rocks.....	19

7.1.6	<i>Mafic and Felsic Phaneritic Intrusives</i>	19
7.1.7	<i>Intermediate Volcanics</i>	20
7.1.8	<i>Esmeralda Formation</i>	20
7.1.9	<i>Playa, lake bed and flood plain deposits</i>	20
7.2	<i>Local Geology</i>	20
7.3	<i>Structural Geology</i>	21
7.4	<i>Geothermal Activity in Rhodes Marsh area</i>	22
7.5	<i>Lithium Source Rocks</i>	23
7.6	<i>Lithium Brines</i>	24
8	Deposit Types	25
9	Exploration	26
9.1	<i>Historical Exploration and Production</i>	26
9.2	<i>Recent Exploration</i>	26
10	Drilling	37
11	Sample Preparation, Security and Analysis	37
12	Data Verification	38
13	Mineral Processing and Metallurgical Testing	39
14	Mineral Resource Estimates	39
15	Mineral Reserve Estimates	39
16	Mining Method	39
17	Recovery Methods	40
18	Project Infrastructure	40
19	Market Studies and Contracts	39
20	Environmental Studies, Permitting and Social or Community Impact	40
21	Capital and Operating Costs	40
22	Economic analysis	40
23	Adjacent Properties	40
24	Other Relevant Data and Information	42
25	Interpretation and Conclusions	42
26	Recommendations	44
27	References	46
28	Date and Signature Page	48
	<i>Certificate and Date</i>	49

List of Tables

Table 1.1	<i>Terms and Abbreviations</i>	1
Table 1.2	<i>Recommended Budget</i>	9
Table 4.1	<i>Location for Rhodes Marsh claims</i>	11
Table 4.2	<i>List of Rhodes Marsh claims</i>	11
Table 5.1	<i>Climate Data for Goldfields, Nevada</i>	15
Table 7.1	<i>Lithium Concentration in Closed and Open Basins (weight %)</i>	23
Table 9.1	<i>Analytical results of soil sampling program</i>	31
Table 9.2	<i>Summary of soil sampling analytical results</i>	37

<i>Table 12.1</i>	<i>Results of QA/QC samples.....</i>	<i>39</i>
<i>Table 26.1</i>	<i>Recommended Budget.....</i>	<i>44</i>

List of Figures

<i>Figure 1.1</i>	<i>Property location.....</i>	<i>3</i>
<i>Figure 1.2</i>	<i>Generalized claim location map with Township/Range/Section.....</i>	<i>4</i>
<i>Figure 1.3</i>	<i>Rhodes Marsh Northern Claim Block.....</i>	<i>5</i>
<i>Figure 1.4</i>	<i>Rhodes Marsh Southern Claim Block.....</i>	<i>6</i>
<i>Figure 7.1</i>	<i>Geology.....</i>	<i>21</i>
<i>Figure 7.2</i>	<i>Geothermal Activity in Rhodes Marsh area.....</i>	<i>22</i>
<i>Figure 8.1</i>	<i>Schematic Deposit Model for Lithium Brines.....</i>	<i>25</i>
<i>Figure 9.1</i>	<i>Soil sample locations.....</i>	<i>29</i>
<i>Figure 9.2</i>	<i>Lithium values from soil sampling program.....</i>	<i>30</i>
<i>Figure 23.1</i>	<i>Adjacent Claims Map.....</i>	<i>41</i>

List of Plates

<i>Plate 5.1</i>	<i>View of Rhodes Marsh.....</i>	<i>16</i>
<i>Plate 9.1</i>	<i>Collection of soil samples.....</i>	<i>27</i>
<i>Plate 9.2</i>	<i>Sample material placed in sieve.....</i>	<i>28</i>
<i>Plate 9.3</i>	<i>Bagged samples ready for shipping.....</i>	<i>28</i>

1.0 Summary

In December 2021, Healex Consulting, Ltd. (“**Healex Consulting**”), of Nanaimo, British Columbia, was engaged by Alchemist Mining Incorporated (“**Alchemist**”), based in Vancouver, British Columbia to prepare this technical report (this “**Technical Report**”) on the Rhodes Marsh Lithium Brine Project in Mineral County, Nevada, USA (the “**Rhodes Marsh Project**” or the “**Project**”) in accordance with the reporting requirements of National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“**NI 43-101**”). Chris M. Healey, P.Geo., Principal Geologist for Healex Consulting, is the sole author (the “**Author**”) of this Technical Report. The effective date of this Technical Report September 1, 2023.

The Rhodes Marsh Project is an early-stage exploration project and as such mineral resources cannot be estimated or declared at this time. A soil sampling program was completed in May 2022 yielding results that are indicative of the potential presence of a lithium brine beneath the playa. This Technical Report provides an assessment of the exploration potential of this conceptual target.

Table 1.1 provides a brief list of terms and abbreviations used in this Technical Report.

Table 1.1 Terms and Abbreviations

GENERAL TERMS AND ABBREVIATIONS					
					<i>Metric: US</i>
	Term	Abbreviation	Term	Abbreviation	Conversion
Area	Square Meters	m ²	Square Feet	Ft ²	10.76
Area	hectare	Ha	Acre	Ac	2.47
Length	Meter	m	Feet	Ft	3.28
Distance	Kilometer	km	Mile	mile	0.6214
BLM	US Bureau of Land Management				

1.1 Project Location, Description and Ownership

The Rhodes Marsh Project is an early exploration stage project located Soda Spring Valley in Mineral County, west-central Nevada, USA. The Project is located within and immediately adjacent to a playa in a closed basin which has a geologic setting similar to the Clayton Valley,

the site of the only current active lithium production in the USA, which is located approximately 70 air kilometers (45 miles) southeast. The project area is located about 65 kilometers (40 miles) by road south of Hawthorne, Nevada, the County Seat of Mineral County. Hawthorne, which has a population of 3,300 and provides all basic services. The mineral tenure consists of 46 unpatented placer mining claims (383 ha, 947 acres) which were located in December 2021 by Rangefront Mining Services on Federal land (Bureau of Land Management). The claims are shown in the US Bureau of Land Management ("**BLM**") as being registered in the name of Cronin Capital (US) Corp. ("**Cronin**"), who is the bare trustee for Iron Forge Holding (I) Ltd. ("**Iron Forge**"), the beneficial owner of the Rhodes Marsh Project. The claims were originally located in the name of CT Corporation System on behalf of Cronin. They were subsequently quit claimed to Cronin.

Figure 1.1 shows the general location of the Project. The Project is an early-stage exploration project seeking Lithium brine deposits within a closed playa basin in the Basin and Range Geologic Province of Nevada. The geologic model for the Project follows the US Geological Survey Preliminary Deposit Model for Lithium Brines (Bradley, D, et al 2013). The geologic setting of the Project is similar to that of producing lithium brine deposits in the Clayton Valley approximately 70 km by air southeast of the Project.

The Author visited the Rhodes Marsh Project from May 11 to 16, 2022 and observed the collection of 276 soil samples.

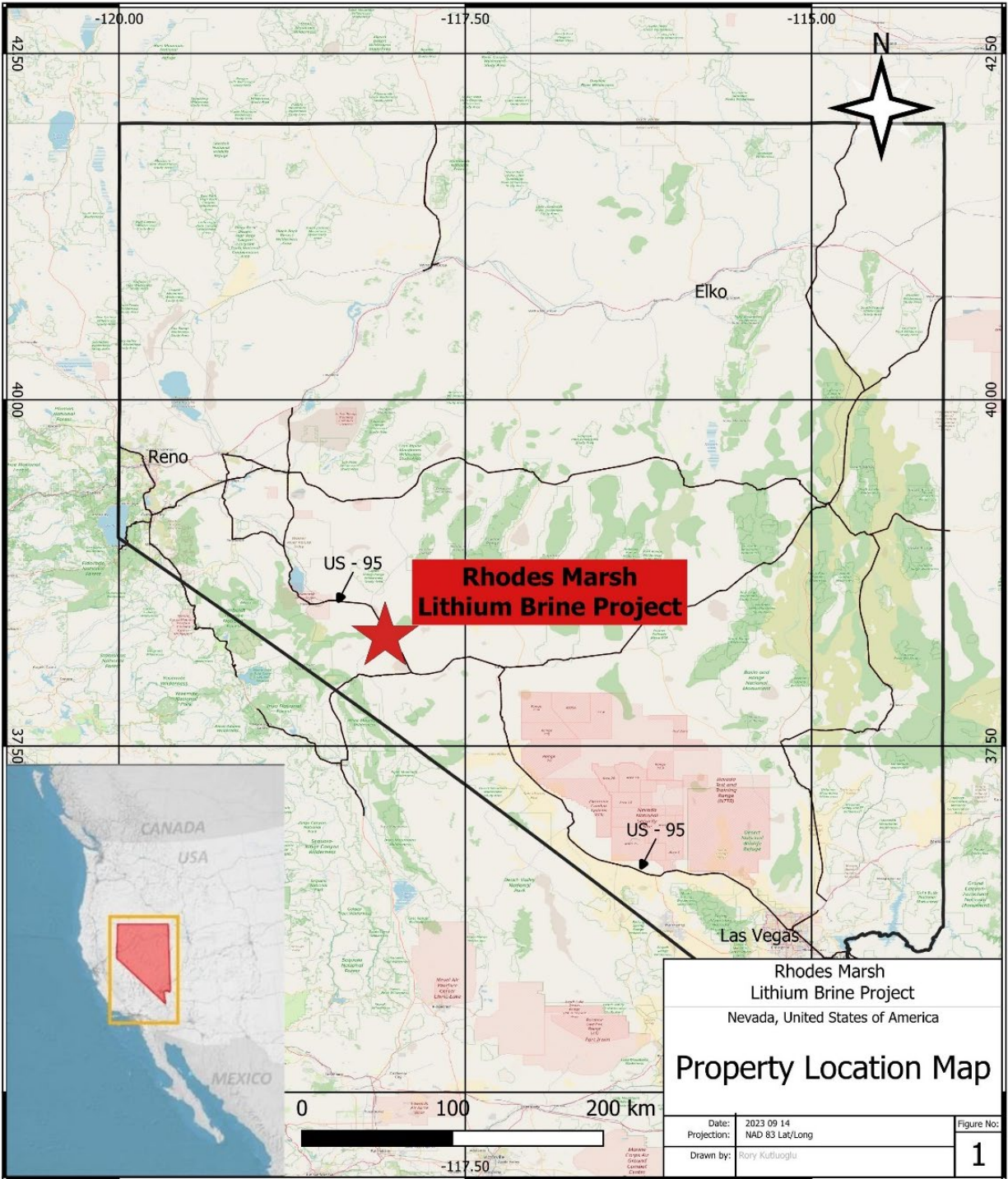


Figure 1.1 Property location

1.2 History

The Project is located within the Rhodes Marsh, a closed structural basin. No production of lithium in the district is reported in the literature; however, there is historic production of salt and borate during the 1880s and 1890s from the basin by Nevada Salt and Borax Company

Alchemist conducted a regional literature survey for lithium brines in Nevada and selected the Rhodes Marsh as a prime exploration target. On December 9, 2021, a total of 46 placer mining claims (RM 01 to RM 46) were located by Rangefront Mining Services in the name of CT Corporation Systems, for Cronin Capital (US) Corp. on behalf of Iron Forge. The claims are located in Sections 11, 14 and 23, township 5N, Range 35E. On April 8, 2022, Alchemist entered into a share exchange agreement with Iron Forge and the shareholders of Iron Forge, pursuant to which Alchemist agreed to acquire from the Iron Forge shareholders all of the issued and outstanding common shares of Iron Forge in exchange for the issuance by Alchemist of 7,500,000 common shares of Alchemist at a deemed price of \$0.145 per common share and 3,750,000 share purchase warrants of Alchemist, exercisable for a period of two years at a price of \$0.20 per common share. The claim locations are shown below in figures 1.2 and 1.3.

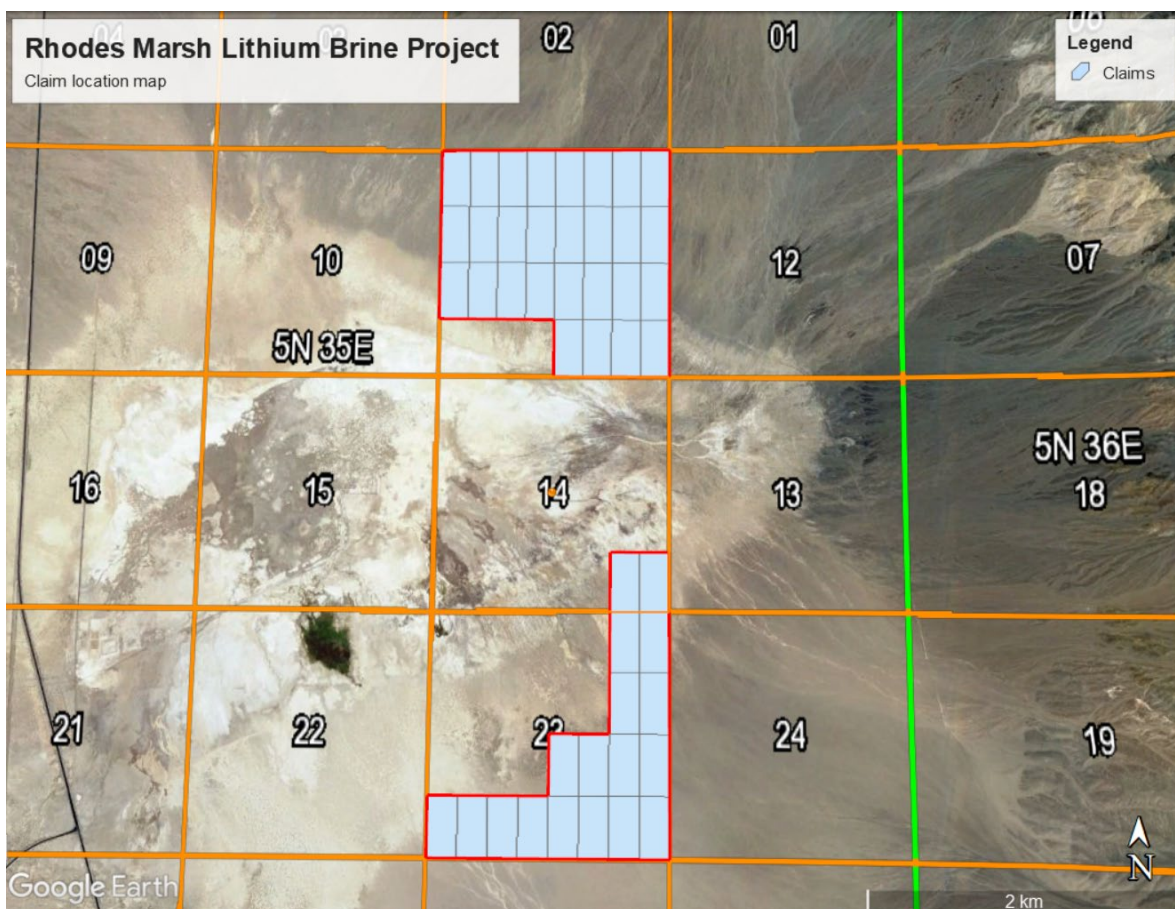


Figure 1.2 Generalized claim location map with Township/Range/Section

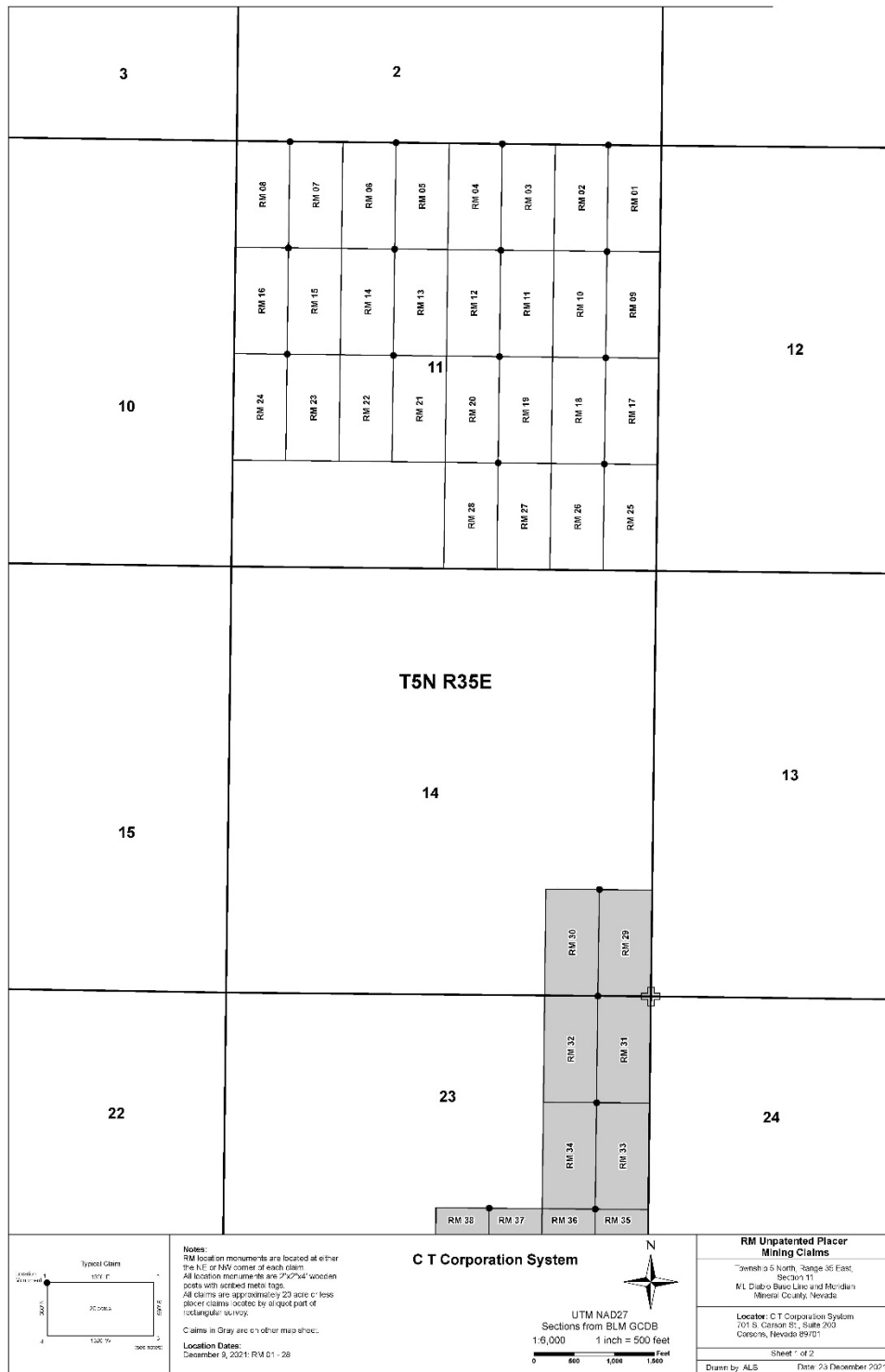


Figure 1.3 Rhodes Marsh Northern Claim Block with claim numbers

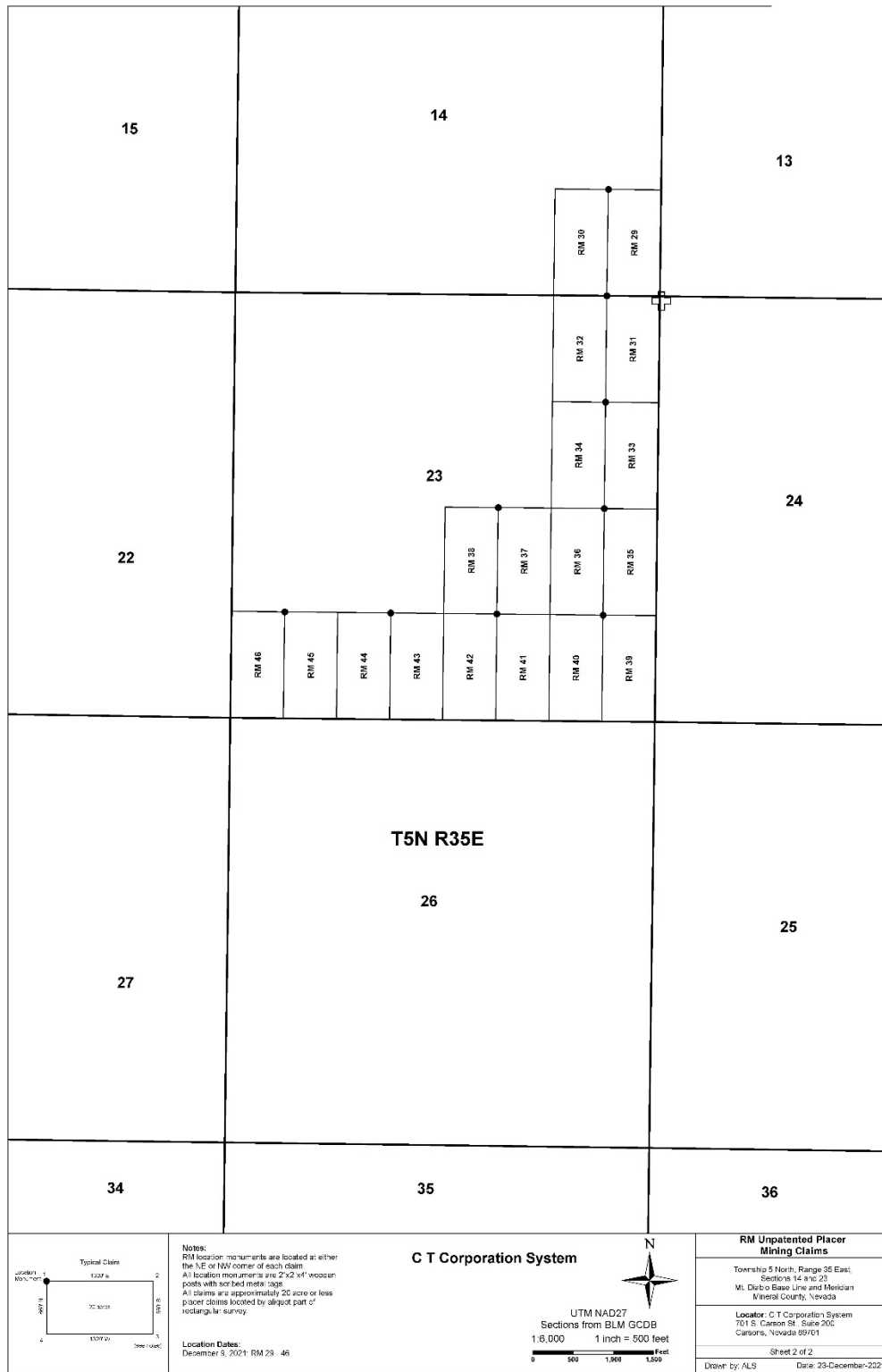


Figure 1.4 Rhodes Marsh Southern Claim Block with claim numbers

1.3 Development and Regulatory Status

There have been no site development activities on the Project. There are abandoned historic borate and salt mines within the Rhodes Marsh area. Surface and mineral resources within the project are administered by the BLM. The company has filed and paid the maintenance fees with the BLM to keep the claims in good standing through to September of 2024. Current site activities including geologic mapping and surface sampling are allowed under BLM regulations as “casual use”. No permits are in place for drilling or the use of mechanized equipment for road building or exploratory excavation on the Project.

1.4 Geology, Alteration and Mineralization

Rhodes Marsh lies within the Basin and Range Province, a vast physiographic region covering much of the inland Western United States and northwestern Mexico. The province is characterized by north-south oriented mountain ranges formed by block-faulting that are separated by broad valleys. The rocks exposed in the mountain ranges consist of sedimentary, igneous and metamorphic rocks that range in age from Precambrian to Tertiary. The valleys are filled with younger (Quaternary and Tertiary aged) sediments which are often unconsolidated. Weathering and erosion have filled the valleys with alluvium and products of volcanism to depths of several thousand feet (Cannon, et al, 1975). Basins such as Rhodes Marsh are filled with Pleistocene and Holocene sediments interbedded with volcanic tuffs.

Surrounding Rhodes Marsh are the Pilot Mountains to the east and the Excelsior Mountains to the west. The bedrock of these uplifted areas on the west side of the marsh consists in large part of volcanic tuff and ash that could be a source of an economic lithium brine resource. A similar geologic setting occurs in the Clayton Valley where lithium is produced from subsurface. Surface samples of sediments in Clayton Valley that were collected by the US Geological Survey contained 100 ppm to 300 ppm lithium (Cannon, et al, 1975).

Regionally, Tertiary volcanic rocks are considered the likely source of lithium brine deposits within closed basins (Davis et al, 1986). The geologic formations and structural setting of the project area are consistent with the US Geological Survey Preliminary Deposit Model for Lithium Brines (Bradley, D, et al 2013).

1.5 Exploration

Alchemist completed a soil sampling program over the property in May 2022. In total, 276 samples were collected by a hand-held power auger, drilling to a depth of approximately 60-75 cm. The program was operated by Rangefront Consulting, under contract to Alchemist. The Author was present during the program and observed the collection of the samples. He also provided guidance to the samplers to ensure best industry practices were followed. Results were very encouraging. Of the 276 samples collected, 100 returned assays >50 ppm Li, of which 35 were >100 ppm Li (maximum value = 210 ppm Li). Five samples exceeded the mean plus 3 standard deviations (and are considered to be anomalous). The high values occur in the southern

part of the north claim block and in the northern part of the south claim block. These two areas are where the claim blocks extend out on to the playa. To the north of the north block, the ground is covered with increasing thicknesses of pediment sediments, such that the auger was not able to penetrate to the underlying salt deposits. Similarly, in the southern extents of the south claim block, the salt pan is covered with variable thicknesses of wind-blown sand deposits.

1.6 Sample Preparation, Security and Analysis

All the soil samples were collected using a small hand-held power auger at depths typically between 60 and 75 cm. Individual samples were placed in kraft paper bags marked with the sample tag number and packaged in rice bags. The Author then personally transported the samples to Western Environmental Testing laboratory (“**WETLAB**”) in Reno, Nevada.

Samples preparation was by the EPA 200.2 method. After extraction, the solubilized analytes are diluted to specified volumes with ASTM Type 1 water, mixed and either centrifuged or allowed to settle overnight before analysis.

Metal concentrations were made using the EPA 200.7 method, which is the determination of metals and trace elements in water and wastes by inductively coupled plasma-atomic emission spectrometry (“**ICP-AES**”).

Elements tested were lithium, boron, magnesium and potassium.

1.7 Data Verification

The Author observed the collection of the soil samples, and so no additional “data verification” samples were required. Since the objective of the sampling program was to “indicate” the presence of lithium, rather than to “quantify” the lithium content, no quality assurance-quality control (“**QA/QC**”) samples were added to the sample stream. The Author considers that the laboratory’s internal QA/QC program was sufficient at this stage. In the opinion of the Author, the results of the internal QA/QC program were satisfactory.

1.8 Conclusions and Recommendations

The Author considers that the geological setting and the conceptual model for lithium brine deposition to be appropriate for the purposes of this Technical Report. The geologic setting of the Project reasonably conforms to the Preliminary Deposit Model for Lithium Brines as developed by the US Geological Survey (Bradley, et al, 2013). The results of the soil sampling program clearly indicate that the potential for the presence of a lithium brine at depth exists. However, there is a risk that exploration will not result in discovery of an economic mineral lithium brine resource within the project area.

It is recommended that exploration of the Rhodes Marsh Lithium Brine Project be continued, and that exploration be conducted in phases with each successive phase being dependent upon the results of the previous phase.

The recommended budget for phases 1 and 2 is shown in table 1.2

Table 1.2 Recommended Budget

Phase 1	
Gravity survey	\$75,000.00
Permitting	\$5,000.00
Consulting geologist	\$6,000.00
Technical Report update	\$5,000.00
subtotal	\$91,000.00
Contingency @ 10%	\$9,100.00
Total	\$100,100.00

Phase 2	
CSAMT Magnetotellurics survey	\$125,000.00
Drilling (3 holes at 1500 ft each)	\$675,000.00
Hydrologic testing, water testing and analyses	\$100,000.00
Field geologist	\$25,000.00
Permitting	\$10,000.00
Technical Report update	\$20,000.00
subtotal	\$955,000.00
Contingency @ 10%	\$95,500.00
Total	\$1,050,500.00

1.9 Summary of Risks

There is a risk that exploration will not result in discovery of an economic mineral lithium brine resource within the project area. In addition, the project does have some risks similar in nature to other exploration projects in general and lithium brine projects in particular. Risks common to exploration and mining projects include:

- * Future commodity demand and pricing;
- * Environmental and political acceptance of the project;
- * Variance in capital and operating costs;
- * Mine and mineral processing recovery.

2.0 Introduction

2.1 Purpose of Report and Terms of Reference

In December 2021, Healex Consulting of Nanaimo, British Columbia, was engaged by Alchemist based in Vancouver British Columbia to prepare this Technical Report on the Rhodes Marsh Project in Mineral County, Nevada, USA in accordance with the reporting requirements of NI 43-101. The Author of this Technical Report is Chris M. Healey, P.Geo., Principal Geologist for Healex Consulting, and who is a “Qualified Person” as defined by NI 43-101.

Alchemist is a corporation existing under the laws of British Columbia, having an office at 915-700 West Pender Street, Vancouver, British Columbia V6C 1G8.

This Technical Report has been prepared for the purpose of summarizing all of the available information on the property Alchemist has designated as the Rhodes Marsh Lithium Brine Project. Additionally, this Technical Report is intended to provide a baseline of scientific, technical and exploration information on which future exploration and possible lithium brine development may be based. Rhodes Marsh has the potential to contain economic lithium resources. The recommended phase 1 and 2 exploration plans are designed to identify the presence, quantity and quality of any lithium-bearing groundwater brines which could be present in the property subsurface.

2.2 Sources of Information

Published reports, maps, company press releases and other available information have been evaluated and reviewed in the preparation of this Technical Report. Reports and publications referred to in the report are listed in Section 27 (References).

2.3 Site Visits and Scope of Personal Inspections

The Author, Chris M. Healey, P.Geo., visited the property from May 11 to 16, 2022. During that time, the Author was able to verify ground access conditions, as well as observing the collection of the soil samples.

3.0 Reliance on Other Experts

The Author did not rely on any other experts in the writing of this Technical Report.

4.0 Property Description and Location

4.1 Location and Description

The total area of the Rhodes Marsh Lithium Brine Project is approximately 920 acres (372 hectares). It is located in portions of Sections 11, 14 and 23 of Township 5 North - Range 35 East, Mount Diablo Meridian, Mineral County, west-central Nevada. The Project area is located approximately 65 kilometers (40 miles) by road south of Hawthorne, Nevada (Figure 1.1). The coordinates of the centres of each block are as follows:

Table 4.1: Location for Rhodes Marsh Claims

Coordinates of block centres				
Block	Lat/Long		UTM zone 11S	
North	38.306°	-118.060°	407300E	4240250N
South	38.273°	-118.056°	407600E	4236650N

4.2 Tenure and Ownership

4.2.1 Tenure

The Rhodes Marsh Project consists of 46 unpatented placer mining claims at a nominal 20 acres each. The claim block covers the eastern and southern margins of a well-developed playa in the eastern part of a large closed sedimentary basin. Maps of the claims are shown as Figures 1.2 and 1.3, and individual claims and identifications are listed Table 4.1. An annual maintenance fee (currently US \$165 per claim) must be paid to the Nevada State Office of BLM by September 1 of each year and is current as of the effective date of this Technical Report.

Table 4.2: List of Rhodes Marsh Claims

Claim Name	Location Date	Area (acres)	Section	Township	Range	County document #	BLM Serial #
RM01	2021-12-09	20	11	T5N	R35E	180582	NV105296900
RM02	2021-12-09	20	11	T5N	R35E	180583	NV105296901
RM03	2021-12-09	20	11	T5N	R35E	180584	NV105296902
RM04	2021-12-09	20	11	T5N	R35E	180585	NV105296903
RM05	2021-12-09	20	11	T5N	R35E	180586	NV105296904
RM06	2021-12-09	20	11	T5N	R35E	180587	NV105296905
RM07	2021-12-09	20	11	T5N	R35E	180588	NV105296906
RM08	2021-12-09	20	11	T5N	R35E	180589	NV105296907
RM09	2021-12-09	20	11	T5N	R35E	180590	NV105296908
RM10	2021-12-09	20	11	T5N	R35E	180591	NV105296909
RM11	2021-12-09	20	11	T5N	R35E	180592	NV105296910
RM12	2021-12-09	20	11	T5N	R35E	180593	NV105296911

RM13	2021-12-09	20	11	T5N	R35E	180594	NV105296912
RM14	2021-12-09	20	11	T5N	R35E	180595	NV105296913
RM15	2021-12-09	20	11	T5N	R35E	180596	NV105296914
RM16	2021-12-09	20	11	T5N	R35E	180597	NV105296915
RM17	2021-12-09	20	11	T5N	R35E	180598	NV105296916
RM18	2021-12-09	20	11	T5N	R35E	180599	NV105296917
RM19	2021-12-09	20	11	T5N	R35E	180600	NV105296918
RM20	2021-12-09	20	11	T5N	R35E	180601	NV105296919
RM21	2021-12-09	20	11	T5N	R35E	180602	NV105296920
RM22	2021-12-09	20	11	T5N	R35E	180603	NV105296921
RM23	2021-12-09	20	11	T5N	R35E	180604	NV105296922
RM24	2021-12-09	20	11	T5N	R35E	180605	NV105296923
RM25	2021-12-09	20	11	T5N	R35E	180606	NV105296924
RM26	2021-12-09	20	11	T5N	R35E	180607	NV105296925
RM27	2021-12-09	20	11	T5N	R35E	180608	NV105296926
RM28	2021-12-09	20	11	T5N	R35E	180609	NV105296927
RM29	2021-12-09	20	14	T5N	R35E	180610	NV105296928
RM30	2021-12-09	20	14	T5N	R35E	180611	NV105296929
RM31	2021-12-09	20	23	T5N	R35E	180612	NV105296930
RM32	2021-12-09	20	23	T5N	R35E	180613	NV105296931
RM33	2021-12-09	20	23	T5N	R35E	180614	NV105296932
RM34	2021-12-09	20	23	T5N	R35E	180615	NV105296933
RM35	2021-12-09	20	23	T5N	R35E	180616	NV105296934
RM36	2021-12-09	20	23	T5N	R35E	180617	NV105296935
RM37	2021-12-09	20	23	T5N	R35E	180618	NV105296936
RM38	2021-12-09	20	23	T5N	R35E	180619	NV105296937
RM39	2021-12-09	20	23	T5N	R35E	180620	NV105296938
RM40	2021-12-09	20	23	T5N	R35E	180621	NV105296939
RM41	2021-12-09	20	23	T5N	R35E	180622	NV105296940
RM42	2021-12-09	20	23	T5N	R35E	180623	NV105296941
RM43	2021-12-09	20	23	T5N	R35E	180624	NV105296942
RM44	2021-12-09	20	23	T5N	R35E	180625	NV105296943
RM45	2021-12-09	20	23	T5N	R35E	180626	NV105296944
RM46	2021-12-09	20	23	T5N	R35E	180627	NV105296945

The Author has verified by a search of BLM records that the mining claims are considered active by the BLM. Annual payments for 2023 have been made and the mining claims will remain valid until September 1, 2024, when the next annual payment is due. The Author has reviewed the receipts for the September 1, 2023 payments to BLM.

4.2.2 Ownership

On April 8, 2022, Alchemist entered into a share exchange agreement with Iron Forge and the

shareholders of Iron Forge, pursuant to which Alchemist agreed to acquire from the Iron Forge shareholders all of the issued and outstanding common shares of Iron Forge in exchange for the issuance by Alchemist of 7,500,000 common shares of Alchemist at a deemed price of \$0.145 per common share and 3,750,000 share purchase warrants of Alchemist, exercisable for a period of two years at a price of \$0.20 per common share. Accordingly, Iron Forge was the underlying beneficial owner of the claims which comprise the Rhodes Marsh Project, and there were no other underlying interests to which claims comprising the Project are subject. The claims were originally located in the name of CT Corporation System. They were subsequently quit claimed to Cronin, who is the bare trustee for Iron Forge. The 2023 filing subsequently conducted an additional quit claimed filing for the Rhodes Marsh Project to Lithos Energy, which is currently being processed by the BLM and County offices. This completes the administrative portion of the transaction between Alchemist and Iron Forge that is further described in the Alchemist news release announced on April 8, 2022.

4.3 Permitting, Environmental Liabilities and Other Issues

The Project is located entirely on public land that is administered by the BLM. Surface access to the placer claims and work involving "casual use" such as surface geologic mapping, geochemical sampling and geophysical surveys is right associated with mining claims. Permits are required for motorized work and surface disturbances such as road building, drilling and/or trenching. The type of permit required is dependent upon the nature and extent of the surface disturbance in accordance with BLM's 3809 regulations. A Notice of Intent to explore is required for exploration activities, including drilling, which disturb less than 5 acres. A Plan of Operations is required for disturbance exceeding 5 acres and all mine extraction operations.

An environmental assessment has not been completed for the Project but will be required prior to development activities. The Author is not aware of any specific environmental issues or liabilities related to the Project.

4.4 State and Local Taxes and Royalties

At this time, no royalty is payable to the Federal Government for minerals produced from the claims. There are no underlying royalties payable from production on the Project. There is no mineral severance tax in place on mining operations in Nevada.

Mining companies in Nevada pay three kinds of state and county taxes in addition to federal taxes, including:

- The Net Proceeds of Mines ("NPOM") Tax (Nevada Revised Statutes NRS 362.110), which has existed for decades and was increased from 3.65 percent to 5 percent in 1989. Mining is one of only four industries in Nevada with an industry-specific tax that must be paid in addition to conventional business taxes. More than half of NPOM tax revenue goes to the Nevada General Fund and is distributed on a per capita basis throughout the state.

The remainder goes to the county in which the minerals were produced.

- Property taxes, which are paid on property, plants, and facilities, stay almost exclusively in the counties and special tax districts where mines are located.
- Sales and use taxes are primarily distributed throughout the state on a per capita basis, while a small amount goes to the state's General Fund and to school districts statewide on a per pupil basis. Because modern mining is a capital-intensive business that spends significant amounts on sophisticated equipment and supplies, sales taxes are the largest tax obligation for the industry.
- Lithium production is exempt from the new additions to the NPOM tax enacted in May 2021.

4.5 Surface Rights

Surface use on mining claims on BLM lands for the purposes of mineral development is allowed subject to CFR 3809 regulations but require permits depending on the type of use and area of disturbance. Additional surface rights would be required for the development of project infrastructure as the Project develops.

4.6 Encumbrances and Risks

The unpatented placer mining claims will remain valid provided the filing and annual payment requirements with Mineral County and the BLM are kept current. Legal surveys of unpatented lode mining claims are not required and as of this writing the county records do not show any lode mining claims registered on the property. All of the unpatented lode mining claims have annual filing requirements (\$165 per claim) with the BLM, to be paid on or before September 1 of each year. The 2021 and 2022 payments have been made and the mining claims are valid until September 1, 2023, when the next annual payment is due. Mining claims are subject to the Mining Law of 1872. In addition, a Notice of Intent to Hold is required to be filed each year with the Mineral County Recorder's Office at a cost of \$12 per claim and \$12 per document.

5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

Mineral County is a large area with a small population. According to the 2010 census the 9,880 km² area had a population of 4,772. Hawthorne, the county seat, with a population of about 3,300, is located approximately 65 kilometers (45 miles) by road north of the project. Drilling and exploration services, supplies and contractors are available in Reno and Elko, Nevada and Salt Lake City, Utah.

5.1 Access

There is good road access to the Project. The Project is located 10 km (6 miles) south of Mina, which is a “census-designated place” with a population of 155 in 2010. There is an air-strip at Mina, suitable for small aircraft (runway length 1402 m, 4600 ft). US Highway 95 passes just west of the Rhodes Marsh Project. Direct access to the playa is by a dirt road from US 95.

5.2 Climate

Climate conditions allow for year-round operations. The Köppen Climate System classifies the climate for Mina as semi-arid (*BSk*) with an average precipitation of about 110 mm (4.5 inches) annually. The annual average high temperature is 21°C (70° F), and the average low is 4°C (39° F). July is the hottest month, with average high temperatures 36°C (96° F) and January and December have the coldest temperatures, with lows averaging -6°C (21° F). The formation of the playa development in the basin is highly suggestive of a high evapotranspiration rate as compared to the recharge rate for the basin.

Table 5.1 summarizes climatic data for Mina, Nevada located approximately 30 miles to the north.

Table 5.1 Climate Data for Mina, Nevada

Climate data for Mina, Nevada													[hide]
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Average high °C (°F)	8 (46)	11 (52)	15 (59)	19 (67)	24 (76)	31 (87)	36 (96)	34 (93)	29 (85)	22 (72)	14 (57)	8 (47)	21 (70)
Average low °C (°F)	-6 (21)	-4 (25)	-1 (30)	2 (36)	7 (45)	12 (54)	16 (61)	14 (58)	9 (48)	3 (38)	-2 (28)	-6 (21)	4 (39)
Average precipitation mm (inches)	10 (0.4)	10 (0.4)	10 (0.4)	13 (0.5)	15 (0.6)	10 (0.4)	7.6 (0.3)	7.6 (0.3)	7.6 (0.3)	10 (0.4)	7.6 (0.3)	7.6 (0.3)	110 (4.5)

Source: Weatherbase^[9]

https://en.wikipedia.org/wiki/Mina,_Nevada

5.3 Property Infrastructure

There is no existing infrastructure on the Rhodes Marsh Project. The basic transportation network necessary to support exploration activity is located close to the Project. Water is scarce and would be required to support lithium production facilities, including evaporation ponds.

5.4 Physiography and Vegetation

The Rhodes Marsh Project is located in Soda Spring Valley within the Great Basin physiographic province in a closed sedimentary basin. The area is a low, flat-lying plain including a large playa. The elevation of the area is about 1340 meters (4400 feet) and topographic relief is very low. Vegetation is sparse and consists of hardy, low-growing grasses and sage that are able to survive in high salinity soils and arid conditions. There is no vegetation growing on the playa.



Plate 5.1 View of the Rhodes Marsh

5.5 Flora and Fauna

Detailed vegetation and wildlife surveys of the Project area have not been completed. There is no vegetation on the playa itself.

A review of published maps and data by the US Fish and Wildlife (US Fish and Wildlife Service, Environmental Conservation Online System) indicates that the area is not critical habitat for any listed threatened or endangered species. The Author is not aware of any Federal or State species of interest which would hinder development of the Project.

5.6 Surface Rights and Local Resources

As discussed in Section 4.0, Alchemist has sufficient surface access rights for exploration and development activities. By virtue of rights held by placer claims, access for "casual use" is in place, and drilling, bulk sampling, trenching, etc. can be done through the permitting process which is regulated by the BLM.

6.0 History

The site of past salt and borate production facilities are located on the western side of the playa, west of the mining claims. No lithium production has been reported in the district. No historical mineral estimates are known for the Project.

6.1 Historic Mining Activities

There has been historic production of borax minerals from Rhodes Marsh (USGS Mineral Resources Data System ID M035426). Salt was first produced in 1862, followed by borates around 1872. Initially salt was shipped by camel to Virginia City for use in extracting silver and gold from the Comstock area mines. With the discovery of borax in the early 1870s, cotton ball ulexite ((NaCaB₅O₆(OH)₆·5H₂O), hydrated sodium calcium borate hydroxide, was recovered until the discovery of more easily recovered deposits in Death Valley, California. The marsh was also prospected for potash, but the content of the brines was too low to be economic. In the late 1920s and early 1930s, sodium sulphate was produced from mirabilite (Na₂SO₄·10H₂O), hydrous sodium sulphate, and thenardite (Na₂SO₄), sodium sulphate.

Halite is most pure in the central part of the playa. Cottonball ulexite was the main borate ore and occurs in soft sediments within 30 to 60 cm of the surface along the west and north margins of the marsh. The ulexite areas partially surround the central halite area. Thenardite occurs in lenses 1.0 to 1.5 m thick, lying 0.6 to 2.0 m below the surface. Borax/tincalconite (Na₂(B₄O₇)5H₂O), hydrous sodium borate, is widely distributed as a crust 2 to 10 cm thick in the southern part of the playa and as crystals up to 2.5 cm on diameter in the near-surface mud to the west, SW and SE of the main halite area.

The thenardite lenses occur principally in a band that encircles most of the central halite area and mirabilite occurs mostly as disseminated crystals beneath the thenardite. A near surface layer of mirabilite up to 5 m thick has been reported in one area. Sodium carbonate has been reported as a surface crust in the SE part of the playa.

6.2 Ownership History of the Rhodes Marsh Lithium Brine Project

Alchemist conducted a regional literature survey for lithium brines in Nevada and selected the Rhodes Marsh as a prime exploration target. On December 9, 2021, a total of 46 placer mining claims (RM 01 to RM 46) were located by Cronin Capital (US) Corp. (formerly CT Corporation Systems) on behalf of Iron Forge. On April 8, 2022, Alchemist entered into a share exchange agreement with Iron Forge and the shareholders of Iron Forge, pursuant to which Alchemist agreed to acquire from the Iron Forge shareholders all of the issued and outstanding common shares of Iron Forge in exchange for the issuance by Alchemist of 7,500,000 common shares of Alchemist at a deemed price of \$0.145 per common share and 3,750,000 share purchase warrants of Alchemist, exercisable for a period of two years at a price of \$0.20 per common share. The claim locations are shown in figures 1.2 and 1.3.

6.3 Exploration and Development Work Undertaken

Prior to the May 2022 soil sampling program, there had been no recent exploration activities on the Project.

7.0 Geological Setting and Mineralization

Rhodes Marsh lies within the Basin and Range Province, a vast physiographic region covering much of the inland Western United States and northwestern Mexico. The province is characterized by north-south oriented mountain ranges formed by block-faulting that are separated by broad valleys. This province also includes the Great Basin which is the largest area of closed drainage basins in the United States.

The topography and geology of the Basin and Range Province is the result of the extension and pulling apart of the North American Tectonic Plate. Mountain ranges have been uplifted along north-trending faults and valleys have dropped down. The rocks exposed in the mountain ranges consist of sedimentary, igneous and metamorphic rocks that range in age from Precambrian to Tertiary. The valleys are filled with younger (Quaternary and Tertiary aged) sediments which are often unconsolidated. Weathering and erosion have filled the valleys with alluvium and products of volcanism to depths of several thousand feet (Cannon, et al, 1975). Basins such as Rhodes Marsh are filled with Pleistocene and Holocene sediments interbedded with volcanic tuffs.

Surrounding Rhodes Marsh are Pilot Peak to the east, the Excelsior Mountains to the west and Candelaria Hill to the south. The bedrock of these uplifted areas to the west and south of the Flat consists of significant exposures of volcanic tuff and ash that could be a source of lithium brine deposits. A similar geologic setting occurs in the Clayton Valley where lithium is produced from subsurface brines, as discussed herein.

7.1 Regional Geological Setting

The regional geology is typical of the basin and range terrane of Nevada. The basins are typically alluvium filled with frequent dry lake beds or playas. The range rocks include a variety of Phanerozoic units, as described below, from oldest to youngest.

7.1.1 Golconda Terrane (Permian to upper Devonian): The Golconda terrane is composed of deformed and imbricated thrust slices of upper Paleozoic rocks including deep-marine, pelagic and turbiditic, carbonate, terrigenous clastic and volcanoclastic rocks, radiolarian chert and argillite, and pillow basalt (Silberling, Jones, and others, 1992). While the terrane is characterized by a great diversity of rock types, all rocks are strongly deformed with an east-vergent fabric, a distinguishing characteristic of this terrane (Brueckner and Snyder, 1985; Jones, 1991a; Miller, Kanter, and others, 1982; Murchey, 1990; Stewart, Murchey, and others, 1986). It crops out in a long sinuous belt, up to 100 mi wide in places. Southwest of Mina, the belt trends east from the California border to just north of Tonopah, and then bends north-south to the west of Longitude 117° to about

50 mi north of Winnemucca, where it bends again, sharply to the east-north of Tuscarora with significant exposures eastward and to the northern border of the State.

7.1.2 Luning formation (Upper Triassic): The Luning Formation is an allochthonous sequence of predominantly shallow marine volcanogenic-carbonate rocks. These include the full range of limestone-dolomite. The Luning also contains siliciclastic units. The allochthon consists of numerous, far-travelled thrust nappes, most of which are composed of single formations. It is deformed in polyphase folds.

7.1.3 Dunlap Formation (Lower Jurassic): Dunlap clastic sedimentary rocks are a heterogenous mixture of four types: (1) easterly derived pure quartz sandstone, texturally and compositionally like the Navajo and Aztec sandstones; (2) shallow marine and intertidal carbonates; (3) locally derived "orogenic" breccias, conglomerates and sandstone; and (4) volcanoclastic sediments derived from local Lower Jurassic and Triassic eruptive volcanics, principally andesitic flows and coarse pyroclastics.

7.1.4 Gold Range Assemblage (late Triassic to middle Jurassic): This assemblage consists of mainly nonmarine, terrigenous clastic, and volcanogenic rocks. It is lying with angular unconformity over the Golconda Terrane. The oldest rocks are interbedded subaerial and shallow-marine terrigenous clastic, volcanoclastic, and minor carbonate rocks overlain by shelf carbonates containing Early Jurassic pelecypods. Unfossiliferous quartz arenite and coarse clastic rocks disconformably overlie the shelf carbonate and grade upward into poorly sorted volcanogenic sandstone and coarse clastic rocks. The assemblage is deformed by northeast-trending folds associated with the overlying Luning thrust as well as younger northwest-trending folds. They were originally mapped as the Luning Formation and in a few cases, the Excelsior Formation by early workers. Speed (1977) later modified the definition of the Gold Range Formation. Oldow (1981) included some of these rocks in the Water Canyon assemblage. Since the basement rocks are here included with the Golconda terrane, the term "Gold Range assemblage" is used only for the Mesozoic rocks unconformably overlying the Permian basement.

7.1.5 Ultramafic Rocks: (Triassic?): Ultramafic rocks are present in very small belts or lenses in a few places across the State. In the Candelaria Hills along the Mineral-Esmeralda County boundary, they crop out in a thrust complex that overlies the Candelaria Formation.

7.1.6 Mafic and felsic phaneritic intrusive rocks (Miocene? to Jurassic?): Poorly dated mafic intrusions are concentrated in two regions of Nevada, northwestern and west-central to southwestern parts of the State. They outcrop in northern Nye, Mineral, Esmeralda, Eureka, Humboldt, and Lander Counties, and include rocks described on the county maps as dioritic to andesitic rocks, diorite and related rocks, and granodiorite. Felsic phaneritic

intrusions are widespread in Nevada. They are poorly dated, and comprise granitic rocks, granite porphyry, granodiorite, quartz monzonite and many undivided plutonic rocks.

7.1.7 Intermediate volcanics, silicic ash flow tuff, younger andesite, and intermediate flows and breccias (lower Miocene and Oligocene): The intermediate silicic flows comprise mainly welded and nonwelded silicic ash flow tuffs. Aside from alluvium, this unit covers more of Nevada than any other rock. It is principally exposed in the central regions of the State. It locally includes thin units of air fall tuff and sedimentary rocks. The andesites include units mapped as pyroxene, hornblende phenoandesite, and phenodacite.

7.1.8 Esmeralda Formation (Miocene): The Miocene rocks of the Esmeralda Formation consist of volcanic flows and breccias, as well as fluvio-lacustrine sedimentary rocks. The lower part of the formation contains small lacustrine claystone deposits that interfinger with volcanic breccias and flows. The main fluvio-lacustrine sequence is above the flows (Clausen, 1983).

7.1.9 Playa, lake bed, and flood plain deposits (Holocene and Pleistocene): This map unit occurs in all counties in Nevada for recent lake beds, playas, and undivided alluvium, generally in flood plains.

7.2 Local Geology:

The surface of Rhodes Marsh is composed of alluvial deposits of Quaternary age which were formed by the erosion of the surrounding mountain ranges. The playa is a salt flat and the underlying valley fill consists of gravel, sand, silt and clay, and some volcanic units. No drilling has been done to determine the thickness and water-bearing characteristics of the valley fill sediments. Locally the playa may be covered by wind-blown sand.

The surrounding hills exhibit a variety of rock types. To the southeast is Candelaria Hill area which is underlain mainly by the lower Miocene and Oligocene intermediate silicic ash flow tuff with younger andesitic flow and breccia unit. This is a potential source for lithium in the area. Immediately to the west lie the Excelsior Mountains, underlain by the Permian to upper Devonian Golconda Terrane and younger (lower Miocene and Oligocene) andesitic and intermediate flows. This is also a potential source for lithium. Immediately to the east lies Pilot Peak which is underlain mainly by rocks of the Golconda Terrane and the Gold Range Assemblage.

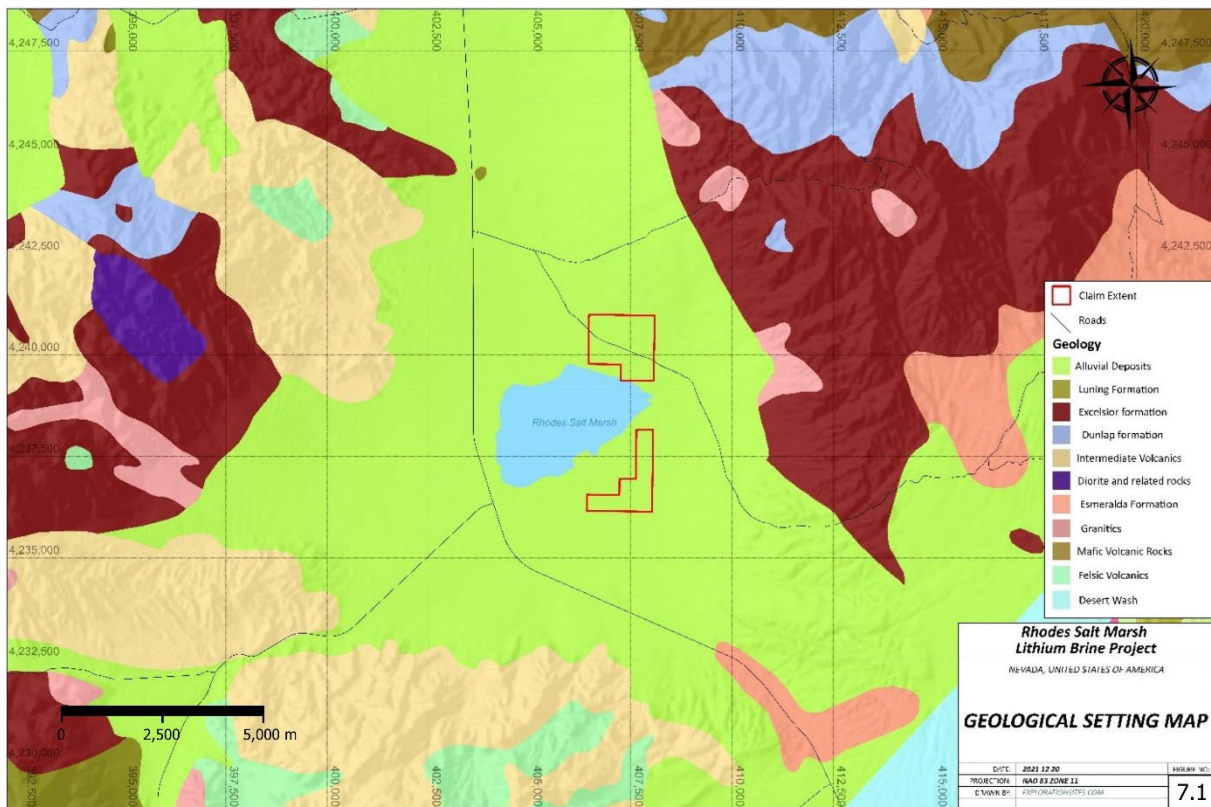


Figure 7.1 Geology

7.3 Structural Geology

As is common in the Basin and Range terrane of Nevada, the area has undergone a highly complex structural history. The northern Pilot Mountains, which are located immediately to the east of the property, consist of a complexly deformed terrane of imbricate thrust sheets composed of rocks of Mesozoic and possible late Palaeozoic ages. The major Soda spring Valley fault forms the western boundary of the Pilot Mountains, immediately adjacent to the Project. Thrust nappes within the allochthonous terrane, named the Luning allochthon, are principally constituted by the Upper Triassic Luning formation. Locally, nappes contain numerous imbricate thrust slices, some of which are composed of undifferentiated Triassic and Jurassic rocks and unnamed volcanic-carbonate assemblages of probable Permian or Triassic age.

Three episodes of folding and thrusting are recognized on the basis of folded thrusts and thrust folds, and deformation and emplacement of the allochthon is constrained as late Mesozoic. Folds apparently formed coevally with thrust faults and old geometry can be used to determine approximate directions of thrust transport. Thrust displacements are responsible for 35 to 40 km of an estimated 70 km of intra-allochthon contraction which is inferred from lithofacies

analysis of rocks juxtaposed by thrust nappes and from the structural overlap of imbricate thrusts (Oldow, 1981).

The history of thrust displacement is complex and involves three directions of motion on a regionally extensive detachment surface, the Luning thrust. First motion, from NW to SE, resulted in the major component of stratal contraction and is the probable result of NW-SE regional compression. The final two episodes of motion are NE-SW followed by east to west. They resulted in small displacements and are possibly the product of gravity sliding of the thrust sheets into a depression formed beneath part of the allochthon within the autochthon. The site of downward in the autochthon may have formed by wither load-induced subsidence or regional compression.

7.4 Geothermal Activity in Rhodes Marsh Area

Bradley et al, 2013, Davis et al, 1986 and others discuss the importance of igneous and/or geothermal activity as a key factor in the leaching of lithium of adjacent source rocks in the formation of lithium bearing brines within the playa environments. Figure 7.3 shows hydrothermal activity within and in the vicinity of Rhodes Marsh (Penfield, et al, 2010).

Figure 7.2 shows a general area of thermal springs and wells along the eastern edge of Rhodes Marsh. This area contains >10 warm springs (20-37° C) on the east side of Rhodes Marsh, adjacent to Iron Forge’s claims. In addition, a hot spring is located approximately 5 km (3 miles) north of the Project, at Sodaville Springs.

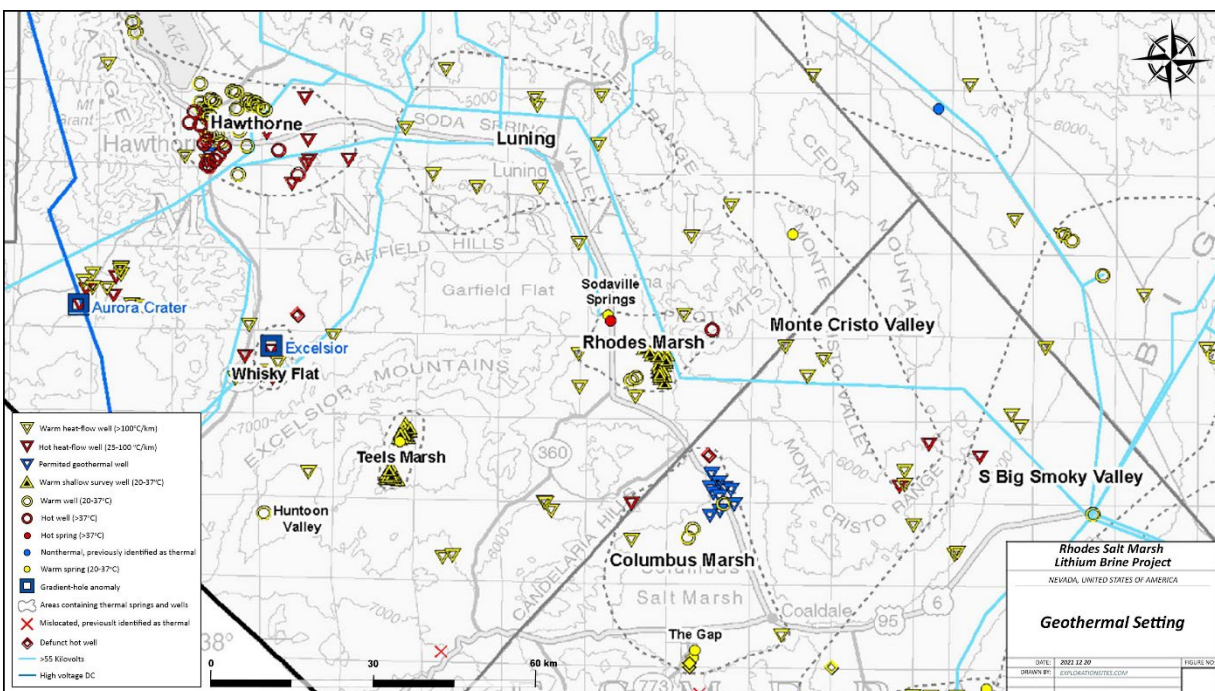


Figure 7.2 Geothermal Activity in Rhodes Marsh Area

7.5 Lithium Source Rocks

Regionally, Tertiary volcanic rocks surrounding the closed basins are considered to be the likely source rock for lithium within salt brines within closed basins playas including the Clayton Valley (Davis et al, 1986). More recent research (Munk, 2011) concludes that the source rocks for the lithium brine deposits are a combination the Tertiary volcanic rocks surrounding the basins and lithium rich clays which formed in the ancient lake beds which formed from volcanic ash deposited in the basins. These potential source rocks, Tertiary volcanic and lacustrine deposits, are leached either by low temperature terrestrial waters, geothermal waters, or both then transported through the subsurface and concentrated through evapotranspiration in the playas (Munk, 2011).

As shown on Table 7.1 lithium is preferentially concentrated in closed basins where water is discharged predominantly by evapotranspiration. Cyclic processes of wetting and drying in the arid environment present in the region has resulted in the concentration of salts, including lithium in brines and in sediments within the closed basins (Cannon et al, 1975).

Table 7.1 Lithium Concentration in Closed and Open Basins (weight %)

Closed basins, discharged by evapotranspiration	
Amargosa Desert, Nye County, Nev., and Inyo County, Calif.....	0.15
Big Smoky Valley, Nye County, Nev.....	.01
Bristol Lake, San Bernardino County, Calif.....	.03
Clayton Valley, Esmeralda County, Nev.....	.05
Columbus Salt Marsh, Esmeralda County, Nev.....	.023
Death Valley, Inyo County, Calif.....	.03
Fourmile Flat, Churchill County, Nev.....	.007
Hector, Mohave Desert, San Bernardino County, Calif.....	.20
Oasis Valley, Nye County, Nev.....	.015
Owens Lake, Inyo County, Calif.....	.08
Railroad Valley, Nye County, Nev.....	.015
Sarcobatus Flat, Nye County, Nev.....	.03
Median.....	0.03
Open basins, discharged by underflow	
Cactus Flat, Nye County, Nev.....	0.004
Dry Lake Valley, Clark County, Nev.....	.005
Frenchman Flat, Nye County, Nev.....	.015
Gold Flat, Nye County, Nev.....	.008
Kawich Valley, Nye County, Nev.....	.008
Silver Lake, San Bernardino County, Calif.....	.008
Stonewall Flat, Nye County, Nev.....	.007
Yucca Flat, Nye County, Nev.....	.007
Median.....	0.0075

Rhodes Marsh and the Clayton Valley basins are similar in origin resulting from repetitive tectonic down-warping of the basins followed by erosion and deposition of sediments within the basins during Palaeozoic and Mesozoic times.

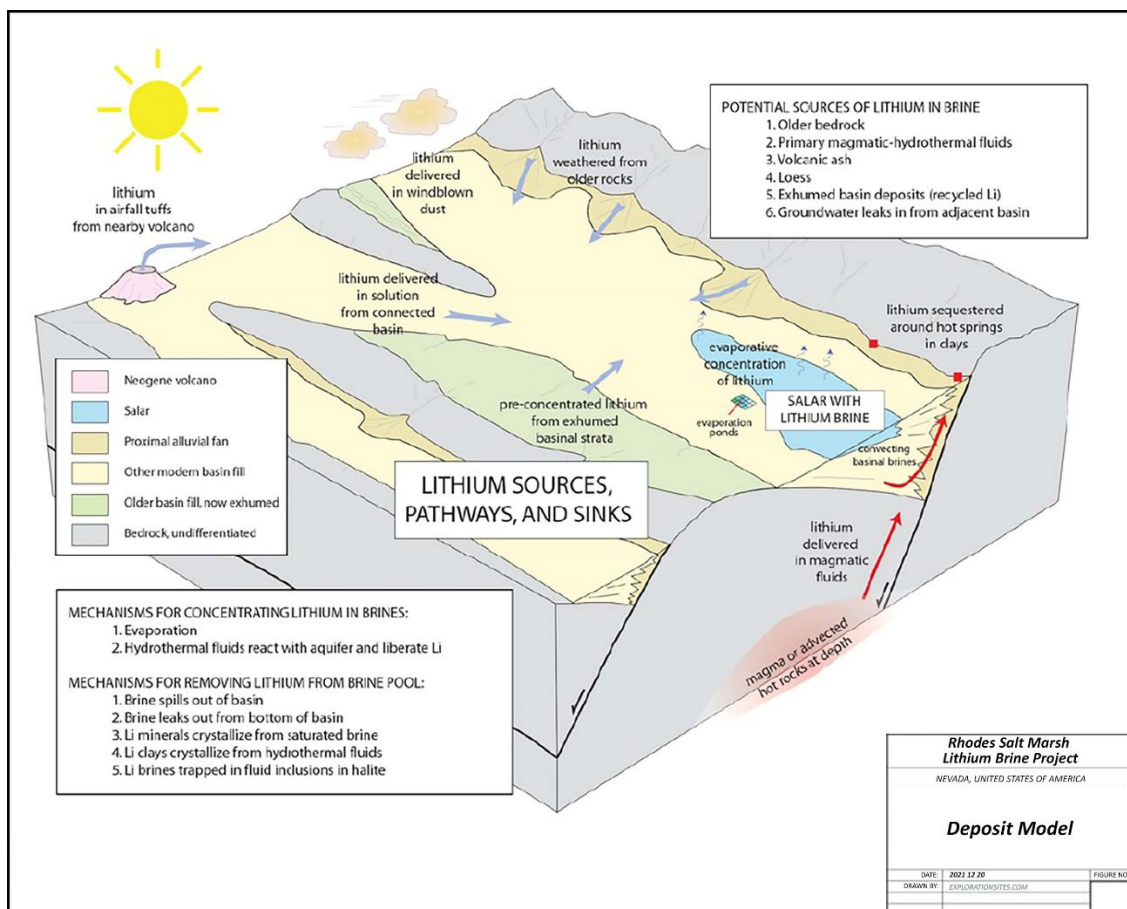
7.6 Lithium Brines

Currently available data relative to lithium brines is limited to the Clayton Valley. USGS Bulletin 1622 (Davis et al, 1986) provides analytical data from 8 wells the Silver Peak mine ranging from 26 to 283 ppm Lithium. Additional data from the Silver Peak mine is generally not available as the company is privately held and thus not required to release data publicly. Additional analytical data is available from an adjacent property, the Clayton Valley South Project, Pure Energy Minerals. The NI 43-101 technical report which states an inferred mineral resource for this project states average Lithium brine concentrations ranging from 37 to 370 ppm (Spanjers, 2015). There is no guarantee that similar results will be found on the Rhodes Marsh Project.

There is no current lithium brine data available for Rhodes Marsh.

8 Deposit Types

Lithium brine deposits result from the accumulation of saline groundwater. Typically, this occurs in closed structural sedimentary basins within arid environments. A preliminary geologic model for lithium brine deposits has been proposed (Bradley et al, 2013). Figure 8.1 from Bradley et al, 2013, shows a schematic diagram of the geologic model. Bradley noted that “all producing lithium brine deposits share a number of first-order characteristics: (1) arid climate; (2) closed basin containing a playa or solar; (3) tectonically driven subsidence; (4) associated igneous or geothermal activity; (5) suitable lithium source rocks; (6) one or more adequate aquifers; and (7) sufficient time to concentrate a brine.” As detailed in Section 7, the Project located in Rhodes Marsh reasonably conforms to this geologic model.



From Bradley, et al. 2013

Figure 8.1 Schematic Deposit Model for Lithium Brines

9 Exploration

9.1 Historic Exploration and Production

The Project is a grassroots exploration project with no previous historical exploration. The mineral rights for the Project were acquired following geologic investigations based on the geologic model for Lithium Brines as suggested in USGS Open File report 2013-1006 (D. Bradley et al, 2013). Historic production of borates and salt has been documented from Rhodes Marsh (see Section 6.1).

9.2 Recent Exploration

Alchemist completed a soil sampling program over the Project in May 2022. In total, 276 samples were collected by a hand-held power auger, drilling to a depth of approximately 60-75 cm, with a nominal 100 x 100 m spacing. The program was operated by Rangefront Consulting, under contract to Alchemist. The Author was present during the program and observed the collection of the samples. He also provided guidance to the samplers to ensure best industry practices were followed. Results were very encouraging. Of the 276 samples collected, 100 returned analytical results of >50 ppm Li, of which 36 were >100 ppm Li (maximum value = 210 ppm Li). Five samples exceeded the mean plus 3 standard deviations (and are considered to be anomalous). These results are presented in table 9.1 and summarized in table 9.2. Figure 9.1 shows the sample locations and figure 9.2 shows the lithium results.

The high values occur in the southern part of the north claim block and in the northern part of the south claim block. These two areas are where the claim blocks extend out on to the playa. To the north of the north block, the ground is covered with increasing thicknesses of pediment sediments, such that the auger was not able to penetrate to the underlying salt deposits. Similarly, in the southern extents of the south claim block, the salt pan is covered with variable thicknesses of wind-blown sand deposits.



Plate 9.1 Collection of soil samples



Plate 9.2 Sample material placed in sieve

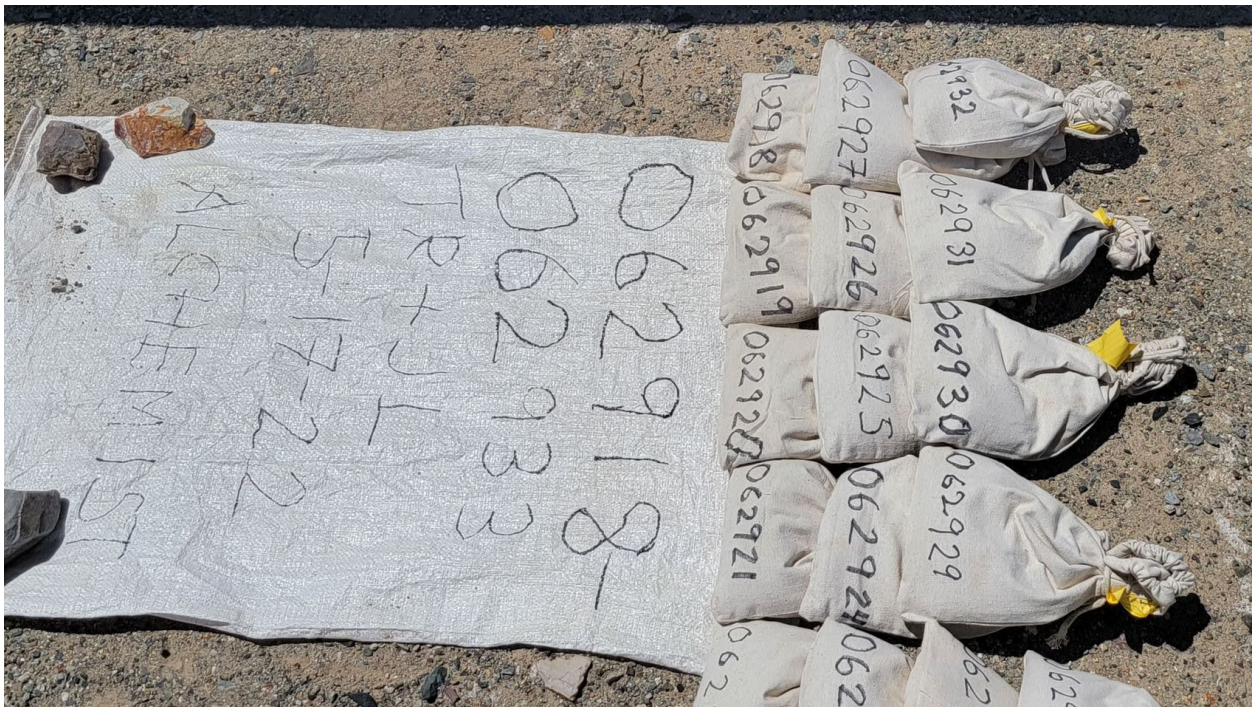


Plate 9.3 Bagged samples ready for packaging.

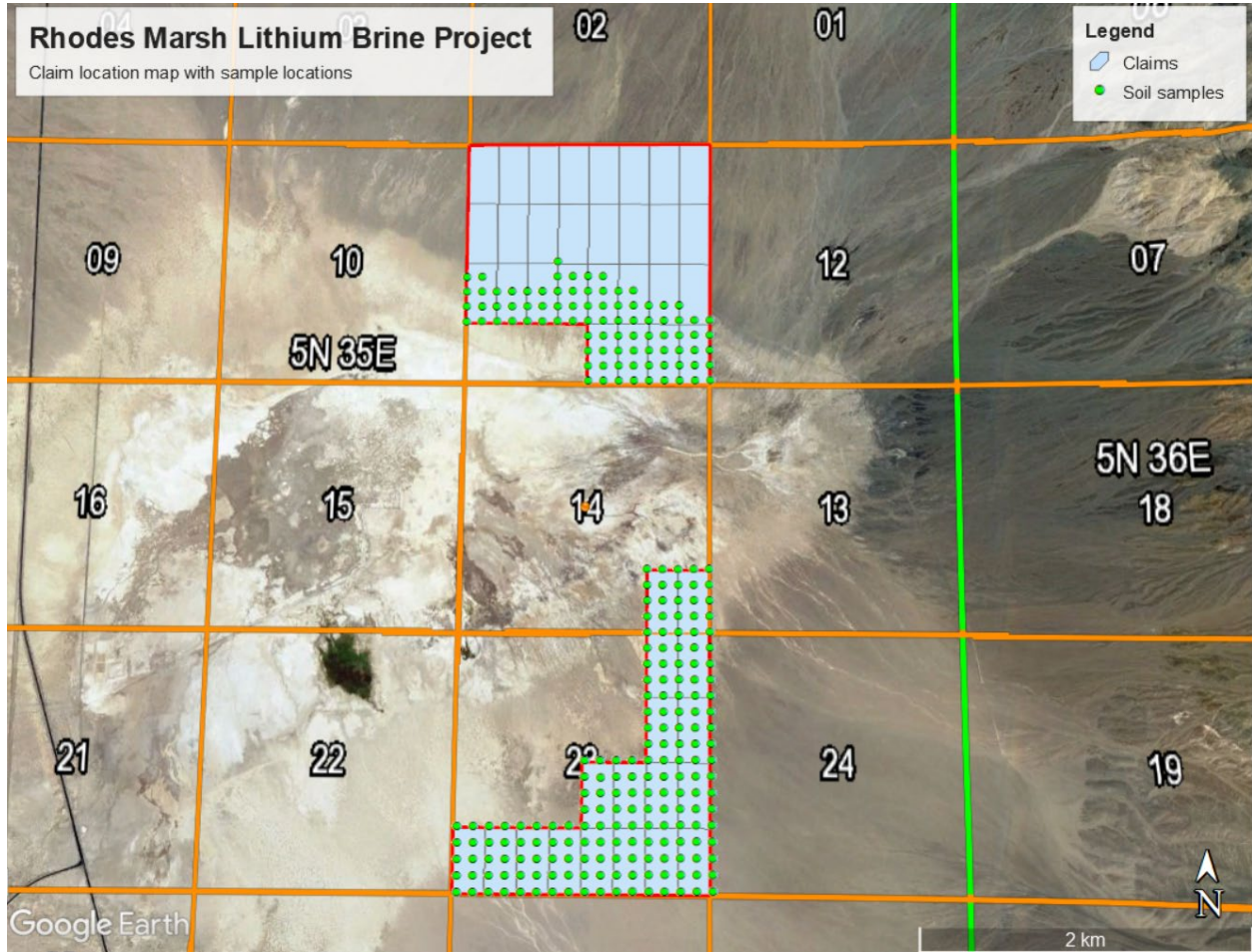


Figure 9.1 Soil sample locations

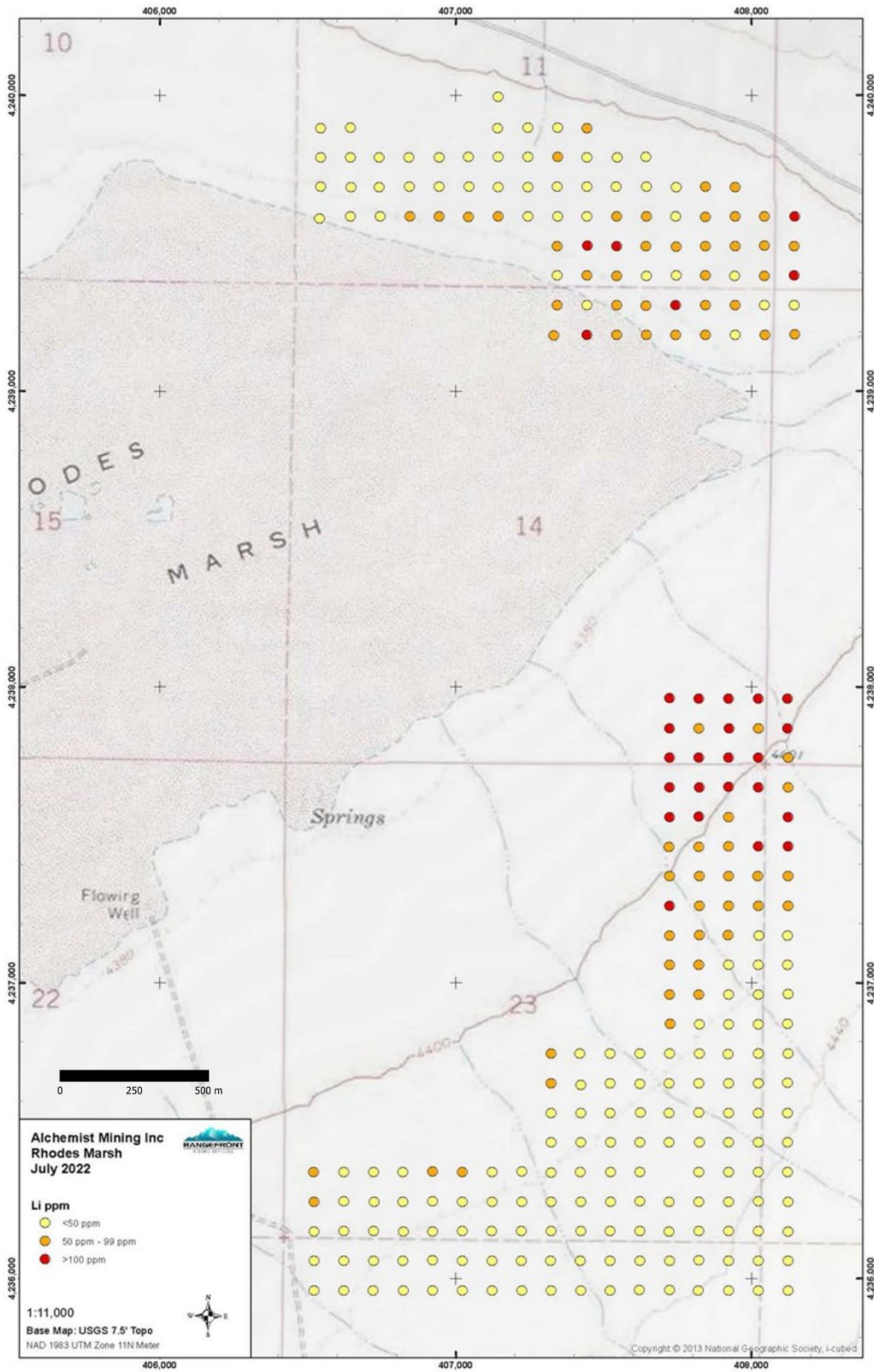


Figure 9.2 Lithium values from soil sampling program

Table 9.1 Analytical results of soil sampling program

Rhodes Marsh soil sampling 2022-05										
WETLAB report	Sample #	Site #	UTM			Li	B	Mg	K	
			East	North	Elevation	ppm	ppm	ppm	ppm	
22050492	55801	RM438	408120.33	4235959.54	1353.02	17	<9.3	5300	1900	
22050492	55802	RM421	408120.51	4236059.52	1353.67	15	<9.3	5200	1700	
22050492	55803	RM420	408020.50	4236059.22	1351.68	19	20	4500	2200	
22050492	55804	RM437	408020.32	4235958.79	1349.39	20	17	5000	2500	
22050492	55805	RM436	407919.79	4235958.71	1353.97	23	30	4700	2600	
22050492	55806	RM419	407920.76	4236059.02	1355.38	27	47	5900	3000	
22050492	55807	RM418	407819.99	4236060.40	1349.58	19	<9.0	5200	2100	
22050492	55808	RM435	407818.49	4235958.99	1355.35	23	37	5300	2700	
22050492	55809	RM434	407721.03	4235959.87	1352.32	20	26	5100	2200	
22050492	55810	RM417	407720.60	4236060.20	1347.35	24	51	6300	2900	
22050492	55811	RM416	407620.16	4236059.90	1347.94	20	23	5100	2400	
22050492	55812	RM433	407618.84	4235960.26	1349.80	25	25	4600	3200	
22050492	55813	RM432	407519.71	4235959.73	1348.13	18	<9.2	4600	2500	
22050492	55814	RM415	407520.34	4236059.83	1346.85	48	120	8200	5300	
22050492	55815	RM414	407419.54	4236058.87	1344.99	34	40	5300	4000	
22050492	55816	RM431	407420.31	4235958.65	1346.52	21	25	4800	2900	
22050492	55817	RM430	407320.41	4235959.12	1342.70	23	38	4100	2600	
22050492	55818	RM413	407318.41	4236059.47	1344.08	30	45	5200	3400	
22050492	55819	RM412	407219.81	4236060.15	1343.75	28	46	5600	3000	
22050492	55820	RM395	407219.82	4236159.92	1339.70	35	82	5800	4000	
22050492	55822	RM378	407221.32	4236259.57	1340.01	17	36	4000	2100	
22050492	55823	RM377	407121.84	4236258.71	1337.09	24	56	4300	2300	
22050492	55824	RM394	407120.00	4236159.74	1345.25	23	44	3600	2400	
22050492	55825	RM411	407120.77	4236059.30	1346.34	23	55	4100	2500	
22050492	55826	RM428	407120.41	4235958.98	1346.90	18	26	3900	2300	
22050492	55827	RM429	407221.11	4235959.16	1347.65	21	40	4000	2300	
22050492	55828	RM396	407319.99	4236159.11	1337.82	24	54	5000	2800	
22050492	55829	RM397	407420.43	4236159.40	1343.48	20	46	4400	2200	
22050492	55830	RM380	407420.70	4236259.50	1341.97	23	63	4000	2100	
22050492	55831	RM379	407320.79	4236259.65	1345.50	18	35	4700	2000	
22050492	55832	RM398	407518.77	4236159.38	1346.83	20	37	3700	1700	
22050492	55834	RM416	407620.85	4236058.57	1349.06	14	21	4100	1700	
22050492	55835	RM399	407620.17	4236159.89	1347.38	18	44	4500	2000	
22050492	55836	RM400	407719.54	4236158.75	1351.06	12	29	3400	1300	
22050492	55837	RM381	407521.13	4236259.35	1345.09	16	37	4100	1600	
22050492	55838	RM382	407620.27	4236260.43	1346.43	19	44	4600	2000	
22050492	55839	RM383	407719.64	4236259.07	1352.49	22	45	4800	2100	
22050492	55840	RM384	407820.06	4236258.49	1349.21	21	46	4500	2100	

22050492	55841	RM401		407819.46	4236159.17	1353.12	15	22	4100	1600
22050492	55843	RM402		407919.20	4236159.70	1354.36	14	26	4000	1400
22050492	55844	RM385		407920.68	4236259.67	1349.93	17	35	4900	1700
22050492	55845	RM386		408021.03	4236259.97	1351.22	15	22	4300	1600
22050492	55846	RM403		408020.50	4236159.21	1352.16	18	35	4900	1800
22050492	55847	RM404		408120.41	4236158.85	1353.55	17	28	5000	1700
22050492	55848	RM363		407419.21	4236358.62	1346.15	18	38	4300	2000
22050492	55849	RM362		407320.95	4236357.30	1344.53	25	61	4500	2400
22050492	55850	RM361		407221.34	4236360.66	1345.92	17	41	4000	1700
22050595	55851	RM360		407120.54	4236359.27	1343.65	28	66	4400	2300
22050595	55852	RM359		407019.76	4236359.21	1344.49	58	160	6200	4300
22050595	55853	RM358		406919.78	4236360.36	1344.16	59	170	6400	4500
22050595	55854	RM357		406819.85	4236358.95	1341.00	36	85	4900	3400
22050595	55855	RM356		406720.65	4236359.32	1339.73	37	84	5400	3600
22050595	55856	RM355		406619.60	4236359.82	1340.59	48	100	6500	4600
22050595	55857	RM354		406518.30	4236359.66	1339.26	96	160	10000	8400
22050595	55858	RM371		406520.20	4236259.54	1341.60	63	210	7700	5800
22050595	55859	RM372		406620.64	4236259.71	1338.93	43	130	5800	4200
22050595	55860	RM373		406721.86	4236259.54	1339.07	31	90	4500	3000
22050595	55861	RM374		406819.84	4236259.19	1339.56	<9.6	27	1200	730
22050595	55862	RM375		406920.11	4236259.70	1341.56	<8.4	17	1200	760
22050595	55863	RM375	DUPLICATE	406920.11	4236259.70	1341.56	<9.5	13	960	530
22050595	55864	RM376		407020.18	4236258.87	1342.31	<9.0	14	990	510
22050595	55865	RM393		407020.17	4236159.22	1340.65	<8.8	12	1000	590
22050595	55866	RM392		406920.08	4236159.04	1341.20	8.8	26	1400	980
22050595	55867	RM391		406820.61	4236159.07	1336.77	<8.3	14	1100	630
22050595	55868	RM390		406720.35	4236159.35	1338.70	<9.1	24	1300	760
22050595	55869	RM389		406620.18	4236159.72	1338.01	11	49	1600	1100
22050595	55870	RM388		406519.74	4236158.89	1336.95	31	93	4600	3300
22050595	55871	RM405		406519.62	4236058.57	1335.99	42	150	6000	4400
22050595	55872	RM406		406620.16	4236059.51	1345.47	19	54	4200	2300
22050595	55873	RM407		406720.51	4236059.57	1345.00	35	85	5100	3300
22050595	55874	RM408		406819.81	4236059.77	1341.71	33	87	5300	3500
22050595	55875	RM409		406920.26	4236060.60	1343.17	24	42	4700	2800
22050595	55876	RM410		407020.78	4236059.56	1346.13	20	53	4000	2600
22050595	55877	RM422		406519.96	4235959.24	1343.64	37	130	5400	3800
22050595	55878	RM423		406620.14	4235959.30	1344.37	24	71	3900	2700
22050595	55879	RM424		406719.01	4235959.71	1343.18	24	73	4400	2600
22050595	55880	RM425		406820.23	4235959.11	1346.31	20	53	4100	2300
22050595	55881	RM426		406920.58	4235959.06	1348.84	21	45	4000	2400
22050595	55882	RM427		407019.53	4235959.03	1346.10	20	37	4600	2500
22050595	55883	RM364		407520.79	4236359.01	1341.46	19	39	3900	1600
22050595	55885	RM365		407620.86	4236358.97	1345.21	23	39	5500	2600

22050595	55887	RM367		407820.34	4236359.03	1346.00	15	20	4900	1500
22050595	55888	RM368		407920.25	4236360.11	1345.49	13	13	4000	1500
22050595	55889	RM369		408019.98	4236359.08	1348.81	17	16	5700	2000
22050595	55890	RM370		408119.02	4236359.40	1354.11	13	<9.8	5600	1500
22050595	55891	RM387		408120.32	4236258.95	1352.58	16	10	5500	1700
22050595	55892	RM353		408119.89	4236459.49	1347.71	19	<9.5	5800	1800
22050595	55893	RM352		408019.80	4236459.30	1351.85	19	15	5100	1500
22050595	55894	RM351		407919.55	4236459.44	1349.76	16	14	5300	1400
22050595	55895	RM350		407820.78	4236459.34	1348.85	20	24	4600	1500
22050595	55896	RM349		407718.87	4236460.06	1342.32	35	61	7300	2200
22050595	55897	RM348		407619.57	4236459.64	1344.89	29	44	5700	1800
22050595	55898	RM347		407521.25	4236460.54	1345.20	27	43	4200	1400
22050595	55899	RM346		407420.20	4236460.03	1345.72	32	64	5100	2100
22050595	55900	RM345		407320.28	4236459.07	1341.06	16	34	3800	1400
22050595	61301	RM336		407320.81	4236558.72	1340.08	36	170	6800	3200
22050595	61302	RM337		407420.37	4236559.24	1344.09	43	76	5200	2300
22050595	61303	RM338		407519.84	4236559.00	1339.01	35	65	5600	2600
22050595	61304	RM339		407621.50	4236559.94	1340.45	34	80	4700	1900
22050595	61305	RM340	DUPLICATE	407719.66	4236559.49	1346.69	28	76	5200	2000
22050595	61306	RM340		407719.66	4236559.49	1346.69	29	67	4700	2000
22050595	61307	RM341		407819.65	4236560.01	1343.66	21	21	6000	1800
22050595	61308	RM342		407920.95	4236558.75	1346.01	20	29	4600	1700
22050595	61309	RM343		408021.12	4236559.16	1351.92	26	36	6700	2200
22050595	61310	RM344		408120.23	4236558.70	1350.17	19	14	7100	1800
22050595	61311	RM335		408118.41	4236660.26	1351.94	15	30	4800	1400
22050595	61312	RM334		408020.25	4236659.38	1347.24	21	24	6600	2100
22050595	61313	RM333		407919.65	4236659.64	1348.22	27	62	6500	2000
22050595	61314	RM332		407820.25	4236658.55	1349.47	14	9.1	6100	1300
22050595	61315	RM331		407719.65	4236658.48	1342.63	26	69	5000	1700
22050595	61316	RM330		407620.18	4236658.17	1346.01	19	41	4200	1200
22050595	61317	RM329		407520.20	4236659.20	1339.49	19	42	4200	1300
22050595	61318	RM320		407519.85	4236759.19	1333.86	32	41	5200	1900
22050595	61319	RM319		407417.94	4236759.25	1337.17	39	100	6100	2800
22050595	61320	RM318		407320.58	4236759.60	1337.65	75	55	7900	4100
22050595	61321	RM327		407319.43	4236659.50	1340.18	59	170	7700	4400
22050595	61322	RM328		407421.63	4236653.78	1345.78	14	16	3700	1700
22050595	61323	RM321		407620.02	4236759.49	1336.55	22	31	4200	1600
22050595	61324	RM322		407721.42	4236760.00	1336.43	36	100	5500	2000
22050595	61325	RM323		407821.14	4236759.19	1338.00	36	150	7100	3500
22050595	61327	RM324		407918.05	4236757.98	1339.06	27	59	5300	2000
22050595	61328	RM325		408020.34	4236759.48	1340.56	21	50	4500	1700
22050595	61329	RM326		408122.08	4236759.43	1342.11	25	58	7800	2600
22050595	61330	RM317		408119.90	4236860.34	1341.79	18	28	6000	1400

22050595	61331	RM312		408120.42	4236960.20	1339.21	40	76	6900	2400
22050595	61332	RM307		408119.88	4237059.09	1337.04	50	150	7200	2900
22050595	61333	RM302		408120.24	4237159.18	1338.37	37	120	7500	1900
22050595	61334	RM297		408121.11	4237259.17	1336.34	59	60	7200	2400
22050595	61335	RM292		408120.32	4237359.16	1336.13	97	56	9500	3800
22050595	61336	RM287		408120.68	4237460.04	1336.05	110	61	12000	4700
22050595	61337	RM282		408120.94	4237559.80	1335.31	130	59	11000	5100
22050595	61338	RM277		408120.50	4237659.13	1335.37	92	59	8300	4300
22050595	61339	RM272		408120.68	4237759.67	1333.54	100	62	11000	5400
22050595	61340	RM267		408119.80	4237859.56	1330.44	130	270	7900	5100
22050595	61341	RM262		408119.98	4237959.66	1330.48	130	160	11000	5900
22050595	61342	RM313		407722.04	4236860.21	1336.62	55	180	6800	3000
22050595	61343	RM314		407821.40	4236858.40	1337.92	34	150	5100	1900
22050595	61344	RM315		407920.52	4236859.16	1337.70	33	160	5200	1800
22050595	61345	RM316		408019.90	4236859.03	1337.65	29	57	6500	1900
22050595	61346	RM311		408020.15	4236958.80	1334.75	28	69	6000	1500
22050595	61347	RM311	DUPLICATE	408020.15	4236958.80	1334.75	38	110	7100	2500
22050595	61348	RM310		407919.48	4236959.50	1336.08	43	160	7700	2600
22050595	61349	RM309		407820.18	4236958.96	1335.55	69	240	8000	3300
22050595	61350	RM308		407721.42	4236959.64	1334.35	78	150	7500	3800
22050595	61401	RM303		407721.26	4237059.86	1339.02	81	37	7200	3800
22050595	61402	RM304		407820.02	4237059.17	1340.49	72	78	8900	3600
22050595	61403	RM305		407920.17	4237059.15	1338.62	40	82	6700	1900
22050595	61404	RM306		408021.47	4237058.99	1339.88	42	180	7000	2300
22050595	61405	RM301		408022.26	4237159.08	1339.71	48	150	6000	2300
22050595	61406	RM300		407918.61	4237159.92	1338.12	76	40	9100	3700
22050595	61407	RM299		407820.63	4237159.60	1337.95	69	22	9500	3600
22050595	61408	RM298		407720.99	4237159.29	1337.23	69	22	9500	3600
22050595	61409	RM293		407720.38	4237258.85	1332.34	110	51	9900	4900
22050595	61410	RM294		407821.51	4237259.36	1342.20	100	52	9400	4500
22050595	61411	RM295		407920.53	4237259.90	1338.54	100	42	8900	3800
22050595	61412	RM296		408019.98	4237258.76	1340.78	82	71	9500	4000
22050595	61413	RM291		408018.85	4237359.43	1339.02	88	110	9700	4100
22050595	61414	RM290		407920.10	4237359.78	1338.63	82	69	9700	4200
22050595	61415	RM289		407820.83	4237360.25	1345.15	78	37	7700	4200
22050595	61416	RM288		407719.88	4237360.06	1336.38	98	64	14000	6300
22050595	61417	RM283		407719.70	4237459.16	1331.87	79	33	8100	4100
22050595	61419	RM284		407820.11	4237458.58	1334.86	100	58	9800	4600
22050595	61420	RM285		407919.93	4237459.77	1336.29	99	84	10000	5000
22050595	61421	RM286		408019.82	4237459.63	1336.90	120	54	12000	5600
22050595	61423	RM280		407919.84	4237559.09	1336.88	100	51	10000	4800
22050595	61424	RM279		407820.13	4237559.89	1334.97	110	49	9900	4700
22050595	61425	RM278		407721.10	4237559.03	1334.42	170	170	11000	7000

22050595	61426	RM273		407720.84	4237659.02	1330.77	140	68	12000	5100
22050595	61427	RM274		407820.65	4237659.77	1331.05	120	110	11000	5400
22050595	61428	RM275		407919.24	4237660.53	1332.06	130	73	9900	5400
22050595	61429	RM276		408020.43	4237659.27	1330.32	170	120	9700	6600
22050595	61430	RM271		408020.80	4237760.47	1330.16	110	37	9700	4400
22050595	61431	RM270		407920.63	4237759.29	1338.42	170	65	9100	5500
22050595	61432	RM269		407820.22	4237759.54	1332.83	190	68	8800	4100
22050595	61433	RM268		407720.33	4237759.79	1330.54	130	75	12000	4900
22050595	61434	RM263		407720.41	4237859.12	1330.82	170	82	9700	5600
22050595	61435	RM264		407819.78	4237858.87	1330.17	98	36	9500	4100
22050595	61436	RM265		407921.42	4237859.37	1331.11	170	70	8000	4200
22050595	61437	RM266		408019.99	4237858.47	1332.12	77	28	8800	4100
22050595	61438	RM261		408021.23	4237959.23	1328.33	120	49	7500	4100
22050595	61439	RM260	DUPLICATE	407920.10	4237958.60	1330.15	120	59	7800	4600
22050595	61440	RM260		407920.10	4237958.60	1330.15	130	94	7100	4200
22050595	61441	RM259		407819.87	4237959.19	1327.15	170	85	7600	4600
22050595	61442	RM258		407720.18	4237961.11	1332.62	210	78	13000	7100
22050595	61443	RM257		408143.08	4239190.89	1334.77	60	27	6000	3100
22050595	61444	RM256		408042.85	4239189.48	1333.02	55	33	6100	3100
22050595	61445	RM255		407941.57	4239189.85	1333.07	50	38	7700	4000
22050595	61446	RM254		407842.14	4239189.99	1330.05	55	47	8600	4300
22050595	61447	RM253		407741.22	4239190.59	1331.19	69	100	7300	4700
22050595	61448	RM252		407642.22	4239190.16	1332.05	54	68	6500	3900
22050595	61449	RM251		407542.77	4239189.20	1337.06	63	85	8400	4800
22050595	61450	RM250		407441.94	4239190.02	1329.03	200	140	12000	6900
22050594	61451	RM249		407329.66	4239186.93	1329.24	60	47	7400	4600
22050594	61452	RM240		407341.29	4239289.61	1334.10	57	53	9500	5000
22050594	61453	RM241		407442.21	4239289.34	1330.57	49	44	8700	4300
22050594	61454	RM242		407542.53	4239290.29	1330.23	69	54	9300	4700
22050594	61455	RM243		407640.73	4239289.17	1328.30	86	77	9300	5600
22050594	61456	RM244		407741.66	4239290.02	1334.11	150	82	6500	3400
22050594	61457	RM245		407842.06	4239290.76	1332.84	76	45	9000	4600
22050594	61458	RM246		407941.49	4239290.29	1335.62	77	37	9700	3800
22050594	61459	RM247		408041.80	4239290.04	1334.43	36	19	6200	2300
22050594	61461	RM248		408141.33	4239290.68	1334.49	40	22	7200	2300
22050594	61462	RM239		408141.76	4239390.10	1335.68	140	40	7800	2800
22050594	61463	RM238		408041.97	4239389.36	1337.05	99	71	6700	4300
22050594	61464	RM237		407941.40	4239389.61	1334.54	50	68	6300	2700
22050594	61465	RM236		407842.06	4239390.09	1330.70	91	37	7600	2900
22050594	61466	RM235		407742.54	4239390.22	1332.72	37	59	7800	2200
22050594	61467	RM234		407642.40	4239389.59	1331.80	39	100	6600	2700
22050594	61468	RM233		407541.48	4239389.86	1333.36	63	82	7600	3300
22050594	61469	RM232		407440.74	4239390.01	1333.94	59	1000	7500	3800

22050594	61470	RM231		407341.31	4239390.37	1331.38	32	92	6100	2200
22050594	61471	RM222		407340.97	4239490.14	1332.48	54	710	7700	4200
22050594	61472	RM223		407442.77	4239490.75	1332.75	190	290	15000	8200
22050594	61473	RM224		407541.05	4239489.85	1330.62	120	91	9300	4400
22050594	61474	RM225		407641.53	4239489.37	1335.16	100	59	8800	4200
22050594	61475	RM226		407742.26	4239488.55	1330.50	97	79	9900	5200
22050594	61476	RM227		407841.98	4239489.85	1337.00	81	52	7700	4100
22050594	61477	RM228		407941.76	4239489.38	1334.38	73	47	7200	4100
22050594	61478	RM229		408041.55	4239490.68	1340.05	70	64	9900	5100
22050594	61479	RM230		408142.28	4239489.87	1339.65	54	62	7500	4000
22050594	61480	RM221		408143.60	4239589.95	1339.60	47	32	7400	3400
22050594	61481	RM221	DUPLICATE	408143.60	4239589.95	1339.60	200	69	9600	6000
22050594	61482	RM220		408041.81	4239590.12	1342.13	55	25	6900	2700
22050594	61483	RM219		407941.95	4239591.03	1334.97	68	32	6000	2500
22050594	61484	RM218		407841.88	4239588.84	1334.54	63	41	7100	3400
22050594	61485	RM202		407942.90	4239689.56	1338.86	59	50	6800	3700
22050594	61486	RM201		407842.60	4239690.16	1338.99	66	71	8600	4900
22050594	61487	RM200		407742.29	4239689.75	1340.48	48	44	8500	4100
22050594	61488	RM217		407741.41	4239589.54	1334.18	46	57	6700	3800
22050594	61489	RM216		407642.16	4239589.79	1337.48	79	76	8800	5400
22050594	61490	RM215		407541.50	4239590.05	1336.93	87	65	10000	6000
22050594	61491	RM214		407441.89	4239589.86	1337.08	47	62	8600	4500
22050594	61492	RM213		407341.85	4239589.79	1335.58	35	60	6900	3400
22050594	61493	RM212		407242.15	4239589.27	1336.71	50	60	8400	4100
22050594	61494	RM211		407140.88	4239589.44	1337.72	91	110	10000	5900
22050594	61495	RM210		407040.65	4239588.26	1338.85	71	76	10000	5300
22050594	61496	RM209		406942.03	4239590.17	1338.72	71	76	13000	5800
22050594	61497	RM208		406842.78	4239590.09	1338.49	69	98	11000	5700
22050594	61498	RM207		406743.26	4239590.02	1336.21	46	110	8000	4000
22050594	61499	RM206		406642.08	4239590.42	1338.45	44	65	10000	5100
22050594	61500	RM205		406537.18	4239583.17	1337.20	38	78	8500	4400
22050595	62901	RM188		406541.72	4239691.45	1332.37	46	57	10000	5500
22050595	62903	RM189		406643.66	4239689.50	1331.82	22	130	6500	2900
22050595	62904	RM190		406739.59	4239689.61	1333.55	21	28	6400	3300
22050595	62905	RM191		406841.56	4239689.99	1338.76	44	76	9000	4400
22050595	62906	RM192		406942.66	4239690.15	1335.60	41	44	9200	4600
22050595	62907	RM193		407042.09	4239690.34	1333.52	48	280	7500	4200
22050595	62908	RM194		407142.11	4239688.85	1335.44	40	150	7100	3800
22050595	62909	RM195		407242.52	4239689.48	1333.65	27	110	5800	2800
22050595	62910	RM196		407341.43	4239690.12	1339.14	42	110	12000	2700
22050595	62911	RM197		407441.38	4239689.86	1333.16	22	51	5500	2800
22050595	62912	RM198		407540.90	4239690.28	1338.22	23	39	5900	2500
22050595	62913	RM199		407641.91	4239690.79	1335.38	33	74	6800	2500

22050595	62914	RM182		407641.22	4239791.00	1336.87	37	290	6000	3300
22050595	62915	RM181		407543.01	4239789.57	1334.28	32	100	6200	2900
22050595	62916	RM180		407442.01	4239790.18	1336.74	33	98	6300	2700
22050595	62917	RM163		407441.03	4239888.18	1339.83	86	200	8300	5500
22050595	62918	RM143		407141.97	4239995.05	1342.38	29	120	7100	5400
22050595	62919	RM160		407140.31	4239888.97	1342.22	25	57	7300	3300
22050595	62920	RM161		407241.31	4239889.58	1339.14	19	13	6100	2100
22050595	62921	RM162		407342.15	4239890.31	1338.71	42	250	6000	2800
22050595	62922	RM179		407342.06	4239790.77	1335.78	56	72	7300	2500
22050595	62923	RM178	DUPLICATE	407241.58	4239790.92	1335.72	25	150	6200	3100
22050595	62924	RM178		407241.58	4239790.92	1335.72	32	160	7000	4000
22050595	62925	RM177		407141.28	4239790.75	1340.33	31	98	6800	2900
22050595	62926	RM176		407040.97	4239790.67	1336.06	23	130	7100	2600
22050595	62927	RM175		406941.62	4239789.83	1333.97	22	63	7400	2300
22050595	62928	RM174		406840.27	4239790.32	1335.30	26	240	7400	3200
22050595	62929	RM173		406739.43	4239789.05	1332.90	21	91	5600	2600
22050595	62930	RM172		406642.19	4239789.28	1334.00	30	97	7100	3000
22050595	62931	RM171		406542.15	4239789.67	1335.01	28	55	6400	3000
22050595	62932	RM154		406541.29	4239888.44	1339.81	38	100	9000	4500
22050595	62933	RM155		406642.31	4239889.82	1333.70	19	53	6800	2800

Table 9.2 Summary of soil sampling analytical results

Summary of analytical results					
Element	n	Average	Minimum	Maximum	Median
Li	276	53	ND	210	37
B	276	77	ND	1000	59
Mg	276	6726	960	15000	6500
K	276	3240	510	8400	2900
values reported as parts per million					

10 Drilling

There has been no drilling on the Project.

11 Sample Preparation, Security and Analysis

All the soil samples were collected using a small hand-held power auger at depths typically between 60 and 75 cm. Individual samples were placed in kraft paper bags marked with the sample tag number and packaged in rice bags. The Author then personally transported the samples to WETLAB in Reno, Nevada.

Samples preparation was by the EPA 200.2 method. After extraction, the solubilized analytes are diluted to specified volumes with ASTM Type 1 water, mixed and either centrifuged or allowed to settle overnight before analysis.

Metal concentrations were made using the EPA 200.7 method, which is the determination of metals and trace elements in water and wastes by inductively coupled plasma-atomic emission spectrometry (ICP-AES).

Elements tested were lithium, boron, magnesium and potassium.

12 Data Verification

The Author observed the collection of the soil samples, and so no additional “data verification” samples were required. Since the objective of the sampling program was to “indicate” the presence of lithium, rather than to “quantify” the lithium content, no QA/QC samples were added to the sample stream. The Author considers that the laboratory’s internal QA/QC program was sufficient at this stage. In the opinion of the Author, the results of the internal QA/QC program were satisfactory.

WETLAB is a certified laboratory and have their Quality Assurance Plan (“QAP”) and specific quality assurance (“QA”) and quality control (“QC”) requirements for all their related testing and analyses they perform. The plan and associated programs are designed to follow the intent of the ISO/IEC Guide 25-1990, “General Requirements for the competence of calibration and testing laboratories and the National Environmental Laboratory Accreditation Conference (NELAC) Quality Systems manual. The various processes and procedures are audited annually as part of the process to the annual certification the lab undergoes. The QAP incorporates all aspects of the laboratory management, testing and reporting. The complete document is available upon request from the laboratory, but for the purposes of this chapter, focus will reside with the procedures specific to the QA/QC for the analysis of samples as tested for Rhodes Marsh.

All laboratory instruments are calibrated to a regular schedule and maintained to the specifications of the manufacturer. These calibrations and/or repairs are documented and verified using certified traceable reference materials. Frequency of the calibrations and repairs follow prescribed SOP for each instrument. Calibration results guide repair and maintenance outside of the scheduled services.

Analytical QA/QC assess the validity of the reported results. Procedures include batching samples into a maximum of 20 samples per batch, to control uniform treatment for all samples. In addition to this, the lab inserts blanks, laboratory control samples, spikes and duplicates are added to each batch to monitor performance of the system. QC samples are introduced at the beginning of sample handling and carried through the entire analytical procedure from preparation to final analysis, resulting in a thorough assessment from start to finish of the lab’s performance.

Specific to the analysis performed on the samples from Rhodes Marsh, ICP_6010, the equipment undergoes an initial calibration of a minimum of 1 blank and 1 standard and then continuing calibration verification outside of the batch QC samples. These must reach verification value within 10% of anticipated results. Then within the batches of 20 samples, there are 1 blank, 1 spiked sample, 1 duplicate and 1 laboratory control sample. A spike sample will be a sample with a different matrix composition to the batch materials (e.g. soils batch would bring a spike sample of a sand or other material). In addition to these batch and inter-batch QC samples, the laboratory also inserts an interference check sample every 8 hours and at the start of use of the ICP unit. If any of these QC samples fail, the instrument is recalibrated, or other appropriate correction is taken until the instrument passes calibration testing. Samples tested after the last successful pass of a QC sample are rerun once the instrument is properly calibrated or other issue identified for the QC samples has been corrected.

A compilation of the QA/QC samples is presented in table 12.1 (below). The blank samples all returned “not detected.” Standard LCS1 was used, with expected values of 50 ppm boron, 50 ppm lithium, 500 ppm magnesium and 500 ppm potassium. All standards analyzed returned values within acceptable ranges.

Table 12.1 Results of QA/QC samples

WETLAB Job #	Blanks		Standard LCS1				
	n	results	n	B 50 ppm	Li 50 ppm	Mg 500 ppm	K 500 ppm
22050492	5	all ND	5	44.7-45.5	50.9-52.1	486-491	493-534
22050594	5	all ND	5	43.2-46.0	47.0-50.7	459-501	492-505
22050595	19	all ND	19	46.0-46.6	45.8-56.3	458-503	483-550

13 Mineral Processing and Metallurgical Testing

No mineral processing or metallurgical testing has been carried on the Project.

14 Mineral Resource Estimate

There are no current Mineral Resources on the Project

15 Mineral Reserve Estimates

There are no current Mineral Reserves on the Project

16 Mining Method

The Rhodes Marsh Project is not an “advanced property” as defined by NI 43-101, therefore this section is not applicable.

17 Recovery Methods

The Rhodes Marsh Project is not an “advanced property” as defined by NI 43-101, therefore this section is not applicable.

18 Project Infrastructure

The Rhodes Marsh Project is not an “advanced property” as defined by NI 43-101, therefore this section is not applicable.

19 Market Studies and Contracts

The Rhodes Marsh Project is not an “advanced property” as defined by NI 43-101, therefore this section is not applicable.

20 Environmental Studies, Permitting and Social or Community Impact

The Rhodes Marsh Project is not an “advanced property” as defined by NI 43-101, therefore this section is not applicable.

21 Capital and Operating Costs

The Rhodes Marsh Project is not an “advanced property” as defined by NI 43-101, therefore this section is not applicable.

22 Economic Analysis

The Rhodes Marsh Project is not an “advanced property” as defined by NI 43-101, therefore this section is not applicable.

23.0 Adjacent Properties

Caeneus Minerals Ltd. has acquired 78 placer claims covering portions of the Rhodes Marsh. There is no publicly available technical information on these claims or any activity that may or may not have been conducted on these claims.

Mineral claims immediately adjacent to the Rhodes Marsh Lithium Brine Project are shown on Figure 23.1

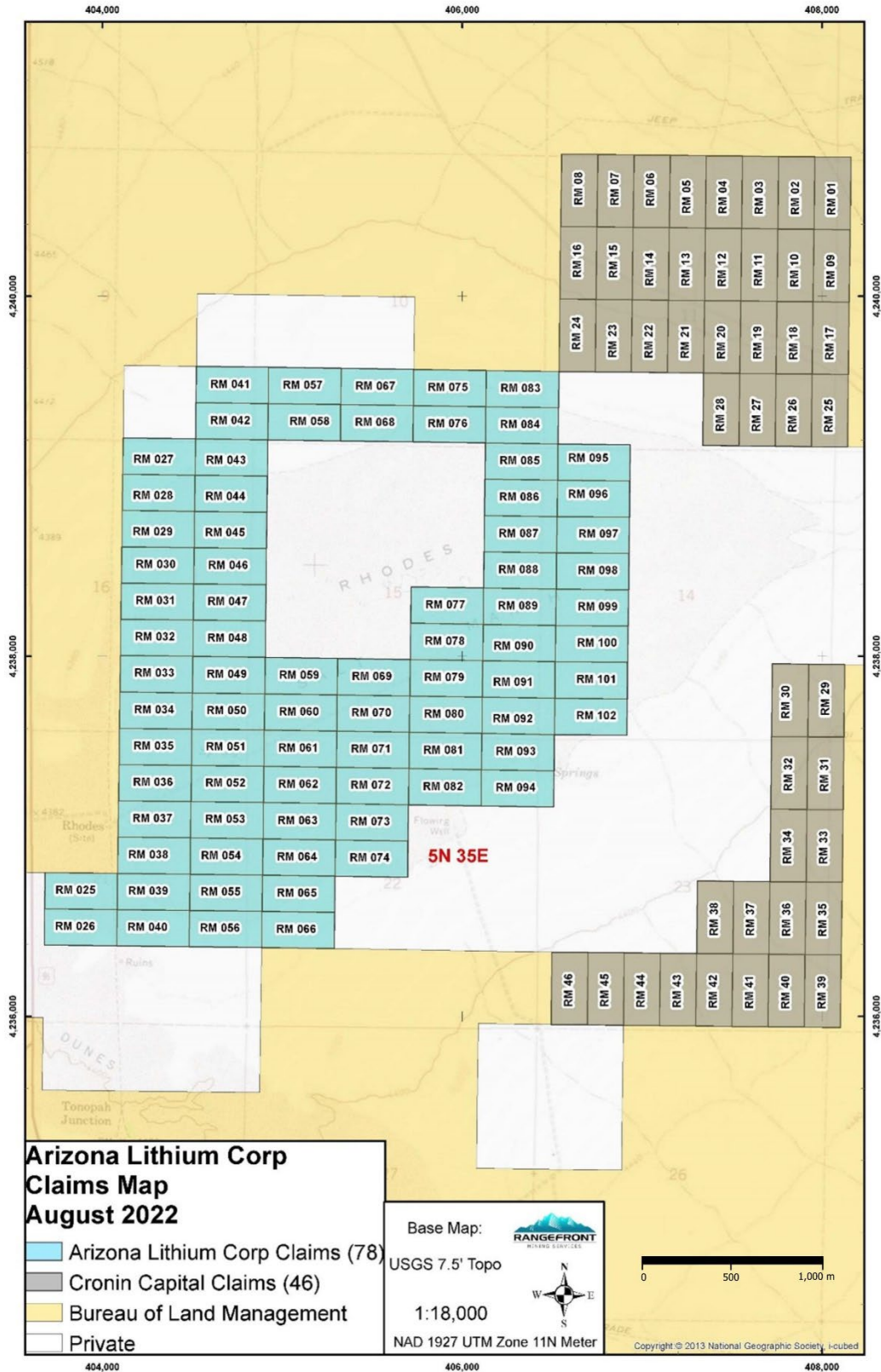


Figure 23.1 Adjacent Claims

24.0 Other Relevant Data and Information

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25.0 Interpretation and Conclusions

The Author considers the data available to be reliable for the purposes of this Technical Report . There is a risk that additional exploration will not result in discovery of an economic mineral lithium brine resource within the project area.

The soil sampling program carries out in May 2022 clearly indicates the presence of anomalous (samples for which value exceeds the mean plus 3 standard deviations) lithium on the property, which is, in the Author's opinion, indicative of the potential presence of a lithium-rich brine at depth.

The exploration model for Lithium brine deposits includes the following key geologic and climatological parameters (Bradley et al, 2013).

1. Arid climate
2. Closed basin containing a playa or salar
3. Tectonically driven subsidence
4. Associated igneous or geothermal activity
5. Suitable lithium source rocks
6. One or more adequate aquifers
7. Sufficient time to concentrate a brine

In comparison to these key parameters the geologic and climatological setting for the Project, as discussed in Sections 7 and 5, respectively, is summarized as follows:

1. *Arid Climate*: The average annual precipitation is approximately 5 inches annually.
2. *Closed basin containing a playa or salar*: Published topographic maps and Google Earth clearly indicate the presence of a playa on and immediately adjacent to the property.
3. *Tectonically driven subsidence*: The basin formation at Rhodes Marsh as with other basins in the region are similar in origin resulting from repetitive tectonic down-warping of the basins followed by erosion and deposition of sediments within the basins during the Paleozoic and Mesozoic (Davis et al, 1986).
4. *Associated igneous or geothermal activity*: Geothermal springs and wells are known within Rhodes Marsh particularly along the eastern margin (Penfield, et al, 2010).
5. *Suitable lithium source rocks*: Possible source rocks for the lithium brine deposits include both the volcanic rocks surrounding the basins and lithium rich clays which formed in the ancient lake beds (Munk, 2011). Published geologic mapping shows Rhodes Marsh to be

surrounded by frequent occurrences of felsic to intermediate ash flows.

6. *One or more adequate aquifers:* There is no direct evidence of the presence of a suitable aquifer on the property; however, the presence of multiple geothermal wells on the property indicates that there is a realistic probability of the presence of such an aquifer.
7. *Sufficient time to concentrate the brine:* The geologic history and age of the basin/playa at Rhodes Marsh is similar to the Clayton Valley, 45 air miles to the SE, which produces lithium from brines.

In addition, the Project does have risks that are similar in nature to other mineral exploration projects in general and lithium exploration projects specially, i.e., risks common to exploration and mining projects include:

- * future commodity demand and pricing;
- * environmental and political acceptance of the project;
- * variance in capital and operating costs;
- * mine and mineral processing recovery;

The Project area reasonably conforms to the Preliminary Deposit Model for Lithium Brines as developed by the US Geological Survey (Bradley, et al, 2013).

26.0 Recommendations

It is recommended that exploration and development of the Rhodes Marsh Lithium Brine Project be continued, and that exploration be conducted in phases with each successive phase being dependent upon the results of the previous phase. The following budget is recommended for the first two phases of detailed exploration:

Table 26.1 Recommended Budget

Phase 1	
Gravity survey	\$75,000.00
Permitting	\$5,000.00
Consulting geologist	\$6,000.00
Technical Report update	\$5,000.00
subtotal	\$91,000.00
Contingency @ 10%	\$9,100.00
Total	\$100,100.00

Phase 2	
CSAMT Magnetotellurics survey	\$125,000.00
Drilling (3 holes at 1500 ft each)	\$675,000.00
Hydrologic testing, water testing and analyses	\$100,000.00
Field geologist	\$25,000.00
Permitting	\$10,000.00
Technical Report update	\$20,000.00
subtotal	\$955,000.00
Contingency @ 10%	\$95,500.00
Total	\$1,050,500.00

The first phase of exploration should be a gravity survey to determine aquifer characteristics.

Contingent upon successful results from phase 1, a controlled source audio magnetotellurics (“**CSAMT**”) is recommended to better define any aquifer that may be present, followed by a program of drilling, aquifer testing and hydrogeological studies should be planned. Standard operating procedures for drilling lithium brines are as follows:

Sampling and analysis of sedimentary units and encountered groundwater aquifers should be accomplished during the drilling. Drill cuttings should be collected for each five-foot (1.5 meter) interval drilled. Samples should be packaged and labeled according to a predetermined sample labeling plan. Discrete samples of water from each water-bearing unit should be collected,

stored and labeled. The plan should also include the insertion of quality control and quality assurance samples for both solids and ground water sample sets and should include field blanks, field duplicates and standards. Once packaged and labeled, samples should be delivered to the selected project laboratory for analysis under chain-of-custody procedures to ensure sample integrity.

Depending upon the results of the drilling and sampling program, aquifer testing and hydrogeological studies should be completed to determine the characteristics of any lithium-bearing aquifers underlying the property. Variables such as porosity, specific yield, permeability, brine volume, aquifer geometry and chemical composition all must be determined in order to demonstrate the feasibility of economic extraction of the lithium-bearing brines. Pumping tests conducted over an extended period of time will be necessary to determine aquifer parameters and characteristics.

27.0 References

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DATE & SIGNATURE PAGES

Herewith, the report entitled “Rhodes Marsh Project, Mineral County, Nevada, NI 43-101 Technical Report” effective date September 1, 2023.

“Original Signed and Sealed”

Chris M. Healey, P.Geo.

Dated September 1, 2023

Healex Consulting Ltd Permit to Practice #1000498

1160 Selkirk Drive

Nanaimo, British Columbia

V9R 5X4

CERTIFICATE & DATE – Chris M. Healey

I, **Chris M. Healey, P.Ge.**, do hereby certify that:

1. I am the Principal Geologist and an owner of Healex Consulting Ltd, a mineral exploration consulting company with an office located at 1160 Selkirk Drive, Nanaimo, British Columbia.
2. I am a graduate of the University of Wales (University College Swansea) in 1968 with a B.Sc. in Geology and Geography.
3. I am a Professional Geoscientist (P.Ge.) registered with Engineers and Geoscientists British Columbia (Registration #36477) and have been a member in good standing since 2011.
4. I have practiced my profession continuously since 1968 and have more than 50 years of experience investigating a wide variety of mineral deposit types, including salar-style deposits for lithium in western USA.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 – *Standards of Disclosure for Mineral Projects (“NI 43-101”)*. In 2016 I personally supervised a soil sampling project, similar to the sampling program reported herein, on the Sarcobatus Flat Lithium Brine Project, Nye county NV. I certify that by reason of my education, experience, independence and affiliation with a professional organisation, I meet the requirements of an Independent Qualified Person as defined in NI 43-101.
6. I visited the Rhodes Marsh Project from May 8 to 16, 2022.
7. I am responsible for all sections of the technical report entitled “Rhodes Marsh Lithium Brine Project, Mineral County, Nevada, NI 43-101 Technical Report” effective date September 1, 2023.
8. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101. I hold no direct or indirect interest in the Rhodes Marsh Project. I have no prior involvement in the project.
9. As of the data hereof, I am not aware of any material fact or material change with respect to the subject matter of the report that is not disclosed in the report which, by its omission, would make the report misleading.
10. To the best of my knowledge, information and belief at the effective date, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical Report not misleading.
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication which the public company files on their website accessible by the public.

Dated this 1st day of September, 2023

“original signed and sealed”

Signature of Qualified Person

Chris M. Healey, P.Ge.