NI 43-101 TECHNICAL REPORT ON THE TEELS MARSH PROPERTY, MINERAL COUNTY, NEVADA, USA

Prepared for Dajin Resources Corp.

Located in all or parts of the following sections:

Sections 1, 11-15, 22-24, Township 4 North, Range 32 East Sections 4-9, 16-19, Township 4 North, Range 33 East Sections 31, 32, Township 5 North, Range 33 East Mount Diablo Meridian, Mineral County, Nevada

Prepared by:

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Date: March 30, 2017 Effective Date: March 21, 2017



Fresh crusts (foreground) containing borax and tincalconite at east end of Teels Marsh. Photo looking northeast, taken September 18, 2005.

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NOTICE

This report was prepared as a National Instrument 43-101 Technical Report for Dajin Resources (US) Corp. (Dajin), by Mark F. Coolbaugh, CPG, QP and Catherine J. Hickson, P.Geo., QP. The information, conclusions, and recommendations contained herein are consistent with: i) data and information available at the time of preparation, and ii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Dajin and is approved for filing as a Technical Report with Canadian Securities Regulators. Except for the purposes legislated under provincial securities law, any use of this report by any third party is at that party's sole risk.

43-101 Technical Report M. Coolbaugh, C. Hickson Teels Marsh, Mineral County, NV Effective date: March 21, 2017

Certificate of Qualified Person

- I, Mark F. Coolbaugh, am a professional geologist and currently serve as director of Dajin Resources Corp. and reside at 600 Greensburg Circle, Reno, Nevada, USA, 89509.
- I am one of the authors of the technical report titled "NI 43-101 Technical Report on the Teels Marsh Property, Mineral County, Nevada, USA", with an effective date of March 21, 2017.
- I earned a B.Sc. degree in Geological Engineering from the Colorado School of Mines in 1978.
- I earned a M.Sc. degree in Geological Engineering from the University of Arizona in 1985.
- I earned a Ph.D. degree in Geology from the University of Nevada, Reno in 2003.
- I am a certified professional geologist with the American Institute of Professional Geologists, registry number 11620, initially registered in 2012.
- I have approximately 35 years of geologic experience, including 25 years in precious, base metal, and energy metal exploration, development, and production, 10 years of geothermal research and exploration, and 1 ½ years of lithium brine exploration.
- As a result of my experience and qualifications, I am a Qualified person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).
- I visited the Dajin property in January, April, May, and August, 2016, for purposes of lithium exploration and assessment, and have previously worked within and adjacent to the subject property in 2005, 2006, and 2008, at that time documenting borate occurrences and geothermal activity.
- I, along with my co-author, am responsible for this entire technical report, titled "NI 43-101 Technical Report on the Teels Marsh Property, Mineral County, Nevada, USA" with an effective date of March 21, 2017.
- I am not independent of Dajin Resources (US) Corp. because I currently serve as a director of Dajin Resource Corp.
- I have read National Instrument 43-101, and this report has been prepared in compliance with that instrument.
- As of the date of this certificate, to my knowledge, information, and belief, this Technical Report contains all scientific and technical information required for disclosure, and is not misleading.
- I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in public company files and related web sites.

Signed

Mars P. Coolby L

Mark F. Coolbaugh, Ph.D., CPG, QP

Signing Date: March 30, 2017 Effective Report Date: March 21, 2017

- I, Catherine J. Hickson, am a professional geologist and currently serve as director of Dajin Resources Corp. and reside at 1503 4194 Maywood Street, Burnaby, British Columbia, Canada V5H 4E9.
- I am one of the authors of the Technical Report titled "NI 43-101 Technical Report on the Teels Marsh Property, Mineral County, Nevada, USA", with an effective date of March 21, 2017.
- I earned a B.Sc. degree in Geology from the University of British Columbia in 1982.
- I earned a Ph.D. degree in Geology from the University of British Columbia in 1987.
- I am a certified professional geologist with the Association of Professional Engineers and Geoscientists
 of British Columbia, Canada, registry number 20437, initially registered in 1996.
- I have approximately 30 years of geologic experience, including 24 years with the Geological Survey
 of Canada, part of which was in the roll of senior manager of the Vancouver BC office, and manager
 of national and multinational programs. An additional 10 years has been spent in geothermal
 exploration and development, and five years in lithium brine exploration.
- As a result of my experience and qualifications, I am a Qualified person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).
- I have visited the Dajin property on numerous occasions since 2014.
- I, along with my co-author, am responsible for this entire Technical Report, titled "NI 43-101 Technical Report on the Teels Marsh Property, Mineral County, Nevada, USA" with an effective date of March 21, 2017.
- I am not independent of Dajin Resources (US) Corp. because I currently serve as a director of Dajin Resources Corp.
- I have read National Instrument 43-101, and this report has been prepared in compliance with that instrument.
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- I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in public company files and related web sites.

Signed

Catherine (Hachs

Catherine J. Hickson, Ph.D., P.Geo, QP

Signing Date: March 30, 2017 Effective Report Date: March 21, 2017

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1.0 SUMMARY

Teels Marsh is a prospective intermediate-stage lithium brine exploration property located in Mineral County in west-central Nevada, USA. This report describes the available geological, geochemical, and geophysical data on the property and the exploration work completed. The lithium exploration potential of the property is discussed and recommendations for future work are provided.

The property comprises 403 unpatented placer claims covering 7,914 acres (3,202 hectares) of Bureau of Land Management ground. There are no underlying owners, but unpatented placer claims staked by other groups adjoin Dajin's property, and small patches of private land are present. Geothermal leases cover the western half of Dajin's claims, but no geothermal exploration has occurred in the area for the last five years. Dajin has also conditionally acquired 1,000 acre-feet per annum of water rights in Teels Marsh. While not sufficient for a large lithium extraction plant utilizing solar evaporation ponds, this water will likely meet the needs of alternative technologies that may not require solar pre-concentration.

Teels Marsh is located in the Mina Deflection, a zone of left-lateral strike-slip faults situated in a broader regional zone of right-lateral, northwest-striking strike-slip faults termed the Walker Lane. The Walker Lane occupies a geologic transition zone between the Great Basin to the east and the Sierra Nevada Mountains to the west. The north and west sides of the valley in which Teels Marsh occurs are followed by active strike-slip and normal faults of the predominantly left-lateral Excelsior Mountain fault system. The architecture of these faults produced a pull-apart block, causing subsidence, leading to formation of a deep sediment-filled basin beneath Teels Marsh.

Dajin's placer claims cover a playa (or "salar" in Spanish vocabulary) named "Teels Marsh". The word "marsh" is a misnomer, because the playa consists of unvegetated mud, silt, and salt. Permanent standing water is found only in the vicinity of springs. Teels Marsh presents a target for lithium brine exploration because it occupies the lowest-elevation portion of a closed 811 km² catchment basin. This basin has high topographic rims that prevent the escape of surface waters during wet climate periods, such as interglacial periods. In combination with a dry, desert climate, the closed basin allows groundwater and surface water to accumulate in the salt flat (Teels Marsh), where evaporation produces a residual salty brine enriched in many dissolved constituents, potentially including lithium.

Lithium has been measured in concentrations of up to 79 mg/L in near-surface (\leq 3 m) brines in the northwest corner of the marsh, but is found in concentrations of \leq 10 mg/L in shallow brines elsewhere in the playa. Higher concentrations of lithium could occur at greater depths in the basin, because saline brines are relatively dense and tend to sink at the expense of fresher water, and because near-surface brines can experience periodic dilution from incoming flood waters. At Clayton Valley, site of Nevada's only operating lithium brine extraction plant, economic concentrations of lithium in brines were reportedly not encountered until drilling was initiated (Davis et al., 1986).

Teels Marsh shares a number of characteristics with basins which contain lithium brines. These characteristics include 1) a dry desert climate in a closed basin with high evaporation rates, 2) a bedrock geology that includes felsic volcanic rocks, which are a potential source of lithium that can be leached by groundwater (especially thermal groundwater), and 3) geothermal activity, that is present on the northwest, southwest, and south sides of the playa with recorded temperatures of up to 97°C at a 40 metre (130 foot) depth. Also encouraging is the fact that Teel Marsh lies relatively near sources of volcanic tephra (ash) at the Long Valley caldera and Mono Craters, CA. These features lie approximately 70 km

southwest of Teels Marsh. A number of eruptions at the Long Valley caldera and Mono Craters during the Quaternary Period produced large amounts of volcanic tephra that settled into basins in west-central Nevada. These tephra layers form significant aquifers for lithium brines at Clayton Valley, 85 km southeast of Teels Marsh, and they could form similar aquifers at Teels Marsh. Aquifers at Teels Marsh might also form in clastic layers of silt, sand, or gravel. Such clastic layers are relatively important hosts for lithium brines in immature basins (basins dominated by mechanical sedimentation) as opposed to mature basins, where chemical sedimentation (halite) is more important (Houston et al., 2011). The closed basins of west-central Nevada, including Teels Marsh and Clayton Valley, fall into the immature category.

Exploration work completed by Dajin at Teels Marsh from 2014 through 2016 includes 1) drilling of 96 auger holes to a typical 9 foot- (2.7 metre) depth, 2) completion of a detailed gravity survey, 3) computer-modeling of basin sediment thickness based on the gravity data, 4) completion of a 19.5 km (12.1 mile) reflection seismic survey on four intersecting profiles, 5) interpretation of the processed seismic data to produce a structural model of basin development, and 6) drilling of 10 Geoprobe holes up to 200 feet (61 metres) deep. The geophysical surveys were used to build a structural and stratigraphic model of the basin. In this model, subsidence along sub-parallel normal faults on the northwest side of the basin formed a deep composite half-graben up to 2.5 km deep. Sedimentary layers within the graben dip to the northwest.

The Geoprobe holes did not encounter significant lithium concentrations in groundwater. However, because of muddy ground conditions, the Geoprobe was not able to test the more prospective western portion of the playa where lithium concentrations were highest in auger brines (up to 79 mg/L) and auger sediments (up to 740 ppm), nor was it able to test the central portions of the playa. The Geoprobe is also not capable of drilling to the depths necessary to test for the presence of a thick volcanic tephra layer (the Bishop Tuff) deposited during the eruption of the Long Valley caldera 0.76 Ma ago. This tephra layer (the "main ash aquifer") forms the largest single lithium brine aquifer at Clayton Valley, where it ranges from 5 to 30 feet (1.5 to 9.1 metres) thick and occurs at depths ranging from 60 to 230 metres (200 to 750 feet)(Zampirro, 2004).

The authors recommend deeper drilling to target possible lithium brines at depth at Teels Marsh. Two drill-holes up to 4,000 feet (1,220 metres) deep are recommended to test two targets: 1) a western subbasin where lithium concentrations in shallow brines are highest, and 2) a more centrally located subbasin where the accumulated sediments are thickest. Both holes would test for the possible occurrence of the Bishop Tuff, which is likely to occur at greater depths in the deeper central sub-basin than in the shallower western sub-basin.

Because of soft, muddy ground conditions in the western and central portions of the playa, it is recommended that drill access be carried out on engineered roads constructed of coarse gravel. To minimize costs, it is recommended that the two planned drill-sites be accessed from a single trunk road with two branches. Due to difficult ground conditions encountered in many playa locations, it is recommended that at each site, an initial hole drilled to 500 feet be used to test relatively shallow aquifers. This would be followed by deeper 2,000 to 4,000-foot holes that would be cased to 500 feet to provide better stability in shallow, less consolidated sediments. The total cost of this drilling program, including engineering of roads and gravel pits, permitting, road construction, drilling, and reclamation, is estimated at USD \$4.0 million dollars (see section 18.2 for further details).

2.0 Introduction

2.1 Issuer

This report was prepared at the request of Dajin Resources (US) Corporation (Dajin), a wholly owned US subsidiary of Dajin Resources Corp., a public Canadian corporation headquartered in Vancouver, BC, Canada. Dajin is a resource exploration company currently focused on the exploration for lithium brines.

2.2 Terms of Reference

This report summarizes all known information of a technical character relevant to assessment of the potential for lithium brines on the Teels Marsh property held by Dajin in south-central Mineral County, Nevada. The format of the report and all content herein follow the guidelines and regulations presented in National Instrument NI 43-101 (Standards of Disclosure for Mineral Projects, updated June 24, 2011), Companion Policy 43-101CP (updated June 24, 2011), and the Ontario Securities Commission Staff Notice 43-704 (Mineral Brine Projects and National Instrument 43-101 Standards of Disclosure for Mineral Projects, dated July 22, 2011). The purpose of this report is to provide an informed technical foundation and disclosure base upon which to base future exploration work and fund-raising activities of Dajin. Mark F. Coolbaugh, Ph.D., CPG, QP, and Catherine J. Hickson, Ph.D., P. Geo, QP, are responsible for this entire report.

2.3 Sources of Information

The majority of the information contained in this report has come from the following sources:

- 1) Geological, geochemical, and geophysical data and reports supplied by agents and contractors working on behalf of Dajin,
- 2) Published literature on Teels Marsh and surrounding areas,
- 3) The authors' personal experiences in the field, on and adjacent to the property, and,
- 4) Discussions with agents, contractors, and other individuals familiar with aspects of the property and surrounding areas.

Contractors and individuals that supervised field, laboratory, or design work, and/or prepared reports covering that work, include:

- 1) For auger drilling and sampling: Ken Tullar, CPG of Pediment Gold Ltd., Sparks, NV and Tom Evans, P.Geo of Western Geoscience Inc., Mina, NV.
- 2) For geoprobe drilling: Ken Tullar, CPG of Pediment Gold Ltd., Sparks, NV.
- 3) For gravity surveying and modelling: Magee Geophysical Services, LLC, Reno, Nevada, and James Wright of J L Geophysics, Spring Creek, NV.
- 4) For seismic surveys and processing: Eagle Exploration, Traverse City, Michigan and Jerry Schwinkendorf of Columbia Geophysical, LLC, Centennial, Colorado.
- 5) For seismic interpretation and structural modelling: Dr. James Faulds, Nevada Bureau of Mines and Geology, Reno, NV.
- 6) For road and site engineering for drill planning: Doug Willis, CPG, John Welsh, P.E., and others at Welsh Hagen Associates, Reno, NV.
- 7) For drill planning: Dick Benoit of Sustainable Solutions, Reno, NV and Capuano Engineering Co. of Santa Rosa, CA.
- 8) For geochemical analyses, laboratory contractors are described in section 11.

All sources of information are acknowledged where discussed in the report and are listed in section 19 (References). The authors believe that these reports and information, to the best of their knowledge, are

valid contributions to this Technical Report, and therefore take responsibility for all ideas, concepts, and conclusions derived from them as they pertain to the current Technical Report.

2.4 Site Visits

Multiple site visits to Teels Marsh have been made by the authors to verify the status of the property and the work performed there, including siting of roads, pads, and wells. During the Geoprobe drilling in September, 2015, the second author visited the site to verify, confirm, and help direct, groundwater and sediment sampling procedures. On January 17, 2016 the first author confirmed the location of some of the placer claims and the location of auger holes drilled by Western Geoscience, Inc. On April 9, 2016, the first author monitored the 2nd round of auger drilling and took samples of zeolite-altered tephra. On April 15-16, 2016 the first author documented thermal springs and travertines south and west of Teels Marsh and sampled and investigated evaporite and alteration minerals in the playa. On Aug. 2-3, 2016, the location of seismic lines and stations were verified by both authors.

In addition to the above-mentioned activities directly related to lithium exploration, the first author participated in geothermal exploration field work at Teels Marsh in 2005, 2006, and 2008. This work, which included 2-meter temperature surveys, geochemical sampling of springs and shallow groundwater, and field spectroradiometer analyses of surface evaporite minerals, identified shallow geothermal activity on the northwest and southwest margins of the playa. The presence of borate minerals on the eastern portion of the playa surface was also confirmed.

2.5 Units and Abbreviations

Units of measure used in this report include the following:

acre-foot	1 acre-foot equals 1.233 million litres or 1,233 cubic metres
cm	centimeter(s)
ft	feet
g/cc	grams/cubic centimetre
in	inch(es)
km	kilometer(s)
lb(s)	pound(s)
mg/L	milligrams/Liter
m	metre(s)
ml	milliliter(s)
μm	micron(s) (one-thousandth of a centimeter)

Abbreviations used in this report, and their definitions, include the following:

3D	three-dimensional
ABS	tough, impact-resistant plastic (acrylonitrile butadiene styrene)
BLM	U.S. Bureau of Land Management
CA	California
CBA	Complete Bouguer Anomaly
CPG	Certified Professional Geologist
Corp.	Corporation
Dajin	Dajin Resources (US) Corp. and Dajin Resources Corp.
ENE	east-northeast
EPA	Environmental Protection Agency
ESE	east-southeast

GBCGE	Great Basin Center for Geothermal Energy, University of Nevada, Reno
GPS	global positioning system
ICP-AES	induced coupled plasma-atomic emission spectroscopy
ICP-OES	induced coupled plasma-optical emission spectroscopy
ICP-MS	induced coupled plasma-mass spectroscopy
ID	inside diameter
IGRF	International Geomagnetic Reference Field
ISO	International Organization for Standardization
LLC	Limited Liability Corporation
Ma	million years (ago)
NBGM	Nevada Bureau of Mines and Geology
NDEP	Nevada Division of Environmental Protection
NDWR	Nevada Division of Water Resources
NE	northeast
NMC	Nevada Mining Claim
NNE	north-northeast
NV	Nevada
NNW	north-northwest
Notice	notice of intent
NW	northwest
OD	outside diameter
P.E.	Professional engineer
P.Geo	Professional geologist
QA/QC	quality assurance/quality control
QP	Qualified Person
SE	southeast
SSE	south-southeast
SSW	south-southwest
SW	southwest
TDS	total dissolved solids
UNR	University of Nevada, Reno
US or U.S.	United States
USA	United States of America
USD	United States Dollar
USGS	United States Geological Survey
WNW	west-northwest
WSW	west-southwest
XRD	x-ray diffraction

3 Reliance on Other Experts

The following experts were relied upon for land, legal, and environmental issues:

- 1) Claim staking and related legal land issues: Sandi Sullivan, Carlin Trend Mining Supplies and Service, Elko, NV and Richard Harris, Esq. of Harris, Thompson & Faillers, Reno, Nevada.
- 2) Water rights issues: Chris Mahannah, P.E., of Mahannah & Associates LLC, Reno, Nevada.
- 3) Permitting and environmental issues: Richard DeLong, Catherine Lee, Kaitlen Sweet, and others at Enviroscientists, Inc. (EM Strategies, Inc.), Reno and Elko, Nevada.

Although relying on these experts, the authors have reviewed the data, information, and the models and conclusions derived from them, and are of the expressed opinion that they represent sound, informed, and knowledgeable judgments based on the best data available at the time.

4 Property Description and Location

4.1 Location

The Teels Marsh property is located in south-central Mineral County, Nevada approximately 42 km southeast of Hawthorne, NV and 195 km southeast of Reno, NV (Figure 4-1). The northeast end of the property is accessed by a 13-km-long section of graded dirt road that heads westerly from paved state highway 360.



Figure 4-1. Location map for Teels Marsh.

4.2 Mineral Claims

As of January 22, 2017, Dajin's property comprised 403 unpatented placer claims, most of which are 20 acres (8.1 hectares) in size, for a total coverage of 7,914 acres (3,202 hectares). These placer claims are 100% owned by Dajin, with no underlying ownership, rights, or royalties. The claims cover all or portions of sections 1, 11, 12, 13, 14, 15, 22, 23, and 24 in Township 4 North, Range 32 East; sections 4, 5, 6, 7, 8,

9, 16, 17, 18, and 19 in Township 4 North, Range 33 East; and sections 31 and 32 in Township 5 North, Range 33 East; all of which lie within the Mount Diablo Meridian in Mineral County, Nevada. Nevada Mining Claim (NMC) numbers, filing dates, and other data for the claims are listed in Appendix A. The authors have verified the correct location of multiple claims in the field, and have also verified that the claims have active status with the U.S. Bureau of Land Management (BLM).

The locations of Dajin claims are shown in Figure 4-2. Dajin's claims cover the entire surface area of the playa where surface salt minerals are found, with the exception of a small group of patented mining claims in the southeast corner of the playa controlled by U.S. Borax Inc. (see section 15 for further discussion). Dajin's claims also cover a deep sediment basin beneath Teels Marsh inferred from gravity and seismic surveys. This deep basin is a primary target for lithium brine exploration, and is described in subsequent sections.



Figure 4-2. Land status map for Teels Marsh.

Teels Marsh, Mineral County, NV Effective date: March 21, 2017

Additional unpatented placer claims have been staked by other parties adjacent to Dajin's claims (Figure 4-2). These claims lie outside the lowest-elevation portion of the playa where surface salt minerals are found, and outside the inferred deep sedimentary basin (Figure 4-2). These other claims are discussed further in section 15.

4.3 Water Rights

The traditional method of extracting lithium from brines involves significant water consumption. This consumption is brought about primarily by the use of solar evaporation ponds that are used to increase the concentration of lithium in brines prior to processing in industrial plants (Garrett, 2004). This water use requires water rights, which in some basins can be difficult to obtain where water resources are scarce and demand is high.

In anticipation of the need for water rights if economic quantities of lithium brines are discovered, Dajin has applied for, and received, a permit for the appropriation of water (NDWR permit number 85204, with priority date of May 29, 2015). This permit allows for the consumptive use of up to 1,000 acre-feet of water annually, which represents 71% of the estimated perennial yield for the Teels Marsh catchment basin (Van Denburgh and Glancy, 1970). This quantity of water is not sufficient to cover the needs of an evaporative pond processing facility the size of the Silver Peak Lithium mine, but it may be sufficient for alternative lithium extraction technologies that do not require solar pre-concentration. The water right is conditional on placing the water to beneficial use by May 24th, 2019.

4.4 Geothermal Leases

Geothermal leases cover much of the central and western portions of the playa, overlapping the placer claims of Dajin (Figure 4-2). As of this report, the leases are under the name of Geothermal Development Associates of Reno, Nevada. The development of geothermal resources and production of geothermal energy, if it occurs at Teels Marsh, could be beneficial for lithium extraction, providing a local source of electricity and thermal energy. This might reduce or eliminate the cost of building a transmission line or the cost of transporting fuel to the project site. Geothermal power facilities typically have a small surface footprint, enabling such a plant to be constructed at Teels Marsh without impacting the development of a lithium brine project. In any case, there has been no significant geothermal exploration at Teels Marsh since 2012.

4.5 Property Agreements and Royalties

Dajin has entered into a mutual non-disclosure and limited data sharing agreement and a field access agreement with U.S. Borax Inc. No other agreements are in place, and there are no underlying royalties to the ground currently controlled by Dajin in Teels Marsh.

4.6 Environmental Liability

Approximately 5 acres (2.0 hectares) of ground disturbance from a seismic survey completed in 2016 are bonded with the BLM through a Notice. The disturbance associated with that survey was minor, consisting largely of vehicle tracks in sand and bare soil that does not require revegetation. Reclamation of that survey is considered complete and a full release of obligations with respect to reclamation will form part of a planned amendment to the existing Notice. The amendment will cover the additional acreage and disturbance required for a proposed deep drilling program (see section 18.1). The impacted area for the drill pads and roads is slightly less than 5 acres (2.0 hectares) and will require an additional bond payment with the BLM. There are no other existing environmental liabilities. The project site does not lay within any sage grouse habitat management areas. Teels Marsh is part of the Marietta Wild Burro Range, which is home to approximately 100 wild burros descendent from stock originally brought into Teels Marsh in the late 1800s and early 1900s to assist with mining operations. Burro management has not been an issue in the two Notices approved by the BLM for Dajin Resources in the last two years.

4.7 Operational Permits and Jurisdictions

Teels Marsh lies on public lands administered by the BLM under the jurisdiction of the Carson City District office located in Carson City, NV. The exploratory work completed to date has been performed under Notices filed with the BLM. The first Notice covered Geoprobe drilling, and almost all the surface disturbance occurred on the playa. Because of a lack of vegetation, a formal revegetation program was not required, and it was possible to complete reclamation and close the Notice. A new Notice was submitted for a seismic survey in the first half of 2016, and disturbance associated with that survey has been reclaimed. An amended Notice was recently submitted to the BLM for drilling of exploration wells, and that Notice was approved in a letter issued by the BLM on March 21, 2017 (reference NVN-94695 3809 (NVC0100). To date, the permitting process has gone relatively smoothly, although slowly, with no significant difficulties.

The drilling of lithium exploration wells also requires approval from the Nevada Department of Water Resources (NDWR). Approvals of the proposed exploration wells and an associated water well were granted on Dec. 5th, 2016.

4.8 Requirements to Maintain the Claims in Good Standing

There are no underlying royalty or lease agreements on the property (other than a gravel pit lease for planned road construction). Requirements for maintaining the claims in good standing include: 1) timely filing of initial location certificates with the BLM and county and payment of recording fees, 2) payment of an annual maintenance fee to the BLM of USD \$155/claim by September 1st of each year (all placer claims are 20 acres or less in size), and 2) filing of an annual "notice of intent to hold" and payment of USD \$12.00/claim to Mineral County by November 1st of each year. All of these actions and payments have been completed by Dajin in 2016 for its claims at Teels Marsh. New claims staked December 28th, 2016 were paid for

4.9 Significant Risk Factors

The authors are not aware of any other significant risk factors that would affect the right and ability to conduct exploration on the property.

5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

5.1 Access

Teels Marsh lies 57 miles (93 km) by gravel road and paved highway from Hawthorne, Nevada. From Hawthorne, the route includes 42 miles (68 km) heading east and south on paved highway U.S. Route 95, then 5 miles (8 km) on paved Nevada State Route 360, then a final 10 miles (17 km) on a good gravel road to Marietta, NV (Figure 4-1). Hawthorne can be reached from Reno, NV by following portions of Interstate 80 and U.S. Route 95 for a total distance of 134 miles (216 km).

Teels Marsh can also be accessed from Bishop, California on 72 miles (116 km) of road and highway, and from Tonopah, Nevada on 77 miles (123 km) of road and highway.

5.2 Climate and Physiography

Teels Marsh lies in the southwestern portion of the Great Basin Desert and the climate is typically dry. At an elevation of 4,910 feet (1,497 metres), the playa occupies the lowest portion of an 812 km² (313 mi²) catchment basin. Mountains and ridges along the catchment divide reach a maximum elevation of 8,805 feet (2,684 metres) at Moho Mountain northeast of Marietta (Figure 4-1). Higher elevations are characterized by pinyon pines and juniper trees, whereas at lower elevations sagebrush, salt brush, salt grass, and other desert grasses and shrubs dominate. The playa surface at Teels Marsh is barren of vegetation and is dry most of the year, but the ground is moist at depths ranging from 0 to 10 cms, and the groundwater table usually lies within 1-3 metres of the surface. Water temporarily covers portions of the playa after flash floods from thunderstorms.

Precipitation records are not available, but the climate is similar to that at Mina, a short distance to the northeast, where average annual precipitation is 4.52 inches (11.5 cm), while at Hawthorne farther to the north it is 4.54 inches (11.5 cm) (Desert Research Institute Western Regional Climate Center data, www.wrcc.dri.edu downloaded Dec. 3, 2016). The highest monthly average maximum temperature in Mina is 95.6°F (35.3°C) in July, and the lowest monthly average minimum temperature is 20.7°F (-6.3°C) in January.

5.3 Local Resources and Infrastructure

There are no facilities or public utilities at Teels Marsh. The largely deserted former mining town of Marietta located at the northern margin of the playa currently has one semi-permanent resident. The nearest trailer park is located in Mina 24 miles (38 km) from Teels Marsh along the route to Hawthorne (Figure 4-1), but there are no other public services available. Limited food, lodging, and gasoline services are available at Benton and Benton Hot Springs, CA 40 miles (64 km) to the south, but more complete services are available in Hawthorne. Hawthorne is the county seat of Mineral County, Nevada and was listed as having 3,269 residents in the 2010 census. Hawthorne is also home to the Hawthorne Army (munitions) Depot.

Transportation of products and services to Teels Marsh is made possible by a network of state and interstate paved highways that connect with Reno, Las Vegas, and beyond. That road network traverses the southern portion of the Teels Marsh catchment basin and comes within 10 miles of Marietta (Figure 4-1). Access to the highway network from Marietta is provided by Douglas Road, a 10-mile segment of maintained graded dirt road that heads eastward, or by another dirt road that heads south. Rail haulage services could potentially be available in Hawthorne, which is the southern terminus of a railroad that has historically been used by the U.S. Army to transport military munitions and supplies.

The nearest source of power is an NV Energy transmission line that runs approximately parallel to U.S. Route 95 east of Teels Marsh. Its closest approach to Teels Marsh is about 17 miles (28 km) to the east near Rhodes Marsh.

6 History

6.1 Hard-rock Metal Mining and Exploration

The hills immediately surrounding Teels Marsh (outside Dajin property) contain minor amounts of silver, lead, gold, uranium, and tungsten mineralization that attracted early prospectors and miners beginning in the 1860s. Minor production of silver and lead, possibly exceeding USD one million dollars in total value, has come from base-metal-silver veins and breccias north of Marietta (Ross, 1961). Sparsely distributed uranium-bearing fractures in granite and volcanic rocks west of Teels Marsh were prospected in the 1950s, and some tungsten mineralization is also reported from that area (Ross, 1961). All of this hard-rock-sourced mineralization lies outside the immediate confines of Teels Marsh and outside the Dajin land position.

6.2 Geothermal Exploration Work

Geothermal exploration work from 2005-2008 by the Great Basin Center for Geothermal Energy (GBCGE) at the University of Nevada, Reno (UNR) led to the discovery of shallow thermal groundwater surrounding the northwestern and southwestern margins of the Teels Marsh playa (sites "A" through "D", Figure 6-1). No thermal springs or wells were known to exist in Teels Marsh basin, but the presence of geothermal activity was suspected based on a recognized link in Nevada between young borates and geothermal activity (Coolbaugh et al., 2006). The geothermal exploration work consisted of geochemical sampling of springs and wells to calculate geothermometer temperatures (Coolbaugh et al., 2006), spectral surveys of surface borate occurrences (Kratt et al., 2006), 2-metre temperature surveys (Kratt et al., 2008), and ultimately, Geoprobe drilling in 2010 (Zehner et al., 2012). The Geoprobe drilling encountered temperatures of up to 97°C at 40 m depth northwest of the marsh (site "A", Figure 6-1), and 78°C at 30 m depth southwest of the marsh (site "B", Figure 6-1).

The geothermal occurrences generally lie near to, but outside Dajin's property boundary, though some overlap occurs in the vicinity of point "A" on Figure 6-1. In any case, geothermal rights, as discussed in section 4.4, are covered by separate geothermal leases under the control of another company as of the effective date of this report.

6.3 Borate and Salt Mining

Teels Marsh was the first location where natural borax was discovered in Nevada. The discovery took place in 1872 and the area was mined between 1873 and 1892 (Papke, 1976). It became the 2nd largest historic borate producer in the state of Nevada (second to the Muddy Mountains in Clark County, Nevada), with total production in excess of 8,900 tons (8,070 metric tons) (Papke, 1976). For a few years, Teels Marsh led the world in borate production, though those early production rates are now overshadowed by higher tonnage rates of modern mining of larger deposits in California, Turkey, South America, and central Asia (U.S. Geological Survey, 2015).

The borate minerals occur as surface layers of borax and tincalconite, with the richest deposits localized near the eastern end of the playa (Figure 6-1). The borax and tincalconite formed from the evaporation of boron-rich groundwater as it rose to the surface in the dry, hot desert environment of the playa. In the last 100+ years since mining ceased, borax and tincalconite crusts have re-formed at some locations, where they have been detected by field spectroscopic and remote sensing surveys (Crowley, 1991; Kratt et al., 2006; Coolbaugh et al., 2006; see title page photo). Most of the borax and tilcalconite-bearing areas are covered by patented mining claims not under the control of Dajin (see section 4.2).

Teels Marsh, Mineral County, NV Effective date: March 21, 2017



Figure 6-1. Distribution of known geothermal activity, springs, borates, and travertine at and near Teels Marsh.

Small amounts of sodium chloride were also mined at Teels Marsh beginning in 1867 to supply mills in the Aurora silver district (Lincoln, 1923) located 45 km to the west. The specific location of this salt production in the playa is not known.

6.4 Other Exploration and Research Activities

In the 1960s and 1970s, a number of research groups investigated shallow groundwater and sediment compositions of Teels Marsh basin. The USGS in cooperation with the Nevada Division of Water Resources appraised the suitability of groundwater for possible domestic, agricultural, or other public use (Van Denburgh and Glancy, 1970). This appraisal included drilling of 11 wells (drilled by Kerr-McGee) around the margins of Teels Marsh to depths of 423 to 695 feet (129 to 212 metres); five of these wells appear to lie within the Dajin claim block (Figure 6-2). Geologic logs and partial water geochemical analyses are available, but no lithium values are mentioned.



Figure 6-2. Location of water wells drilled by the USGS/state of Nevada and auger holes drilled by Everts. The USGS/state of Nevada drilling is documented by Van Denburgh and Glancy (1970) and the auger drilling is documented by Everts (1969).

Other studies have investigated the composition of shallow brines and sediments in Teels Marsh. The University of California and USGS (Hay, 1964) drilled a number of shallow auger holes (10-20 feet deep (3.0-6.1 metres deep) and dug 1-2-metre-deep pits to study zeolite alteration processes in tephra layers (specific locations unknown). In the summer of 1967, 28 auger holes up to 38 feet (11.6 m) deep were drilled as part of a thesis addressing the evolution of brines in Teels Marsh (Everts, 1969). These holes are distributed along the northwestern and northeastern margins of the marsh and most lie within the Dajin property (Figure 6-2). Samples from the Everts drilling were studied further by Drew (1970) to characterize oxidation-reduction processes. In 1974, as part of a Ph.D. thesis, Smith (1974) sampled shallow (up to 3.5 metre-depth) playa sediments and interstitial brines to assess chemical controls on weathering. Smith also analyzed springs around the margins of the marsh to evaluate the nature and

sources of shallow groundwater (Smith, 1974; Smith and Drever, 1976). In 1977, additional samples from shallow pits, many of which lie on Dajin property, were taken to continue zeolitic alteration studies (Taylor and Surdam, 1981). These studies have been helpful for documenting the occurrence of multiple shallow tephra layers in the marsh, characterizing shallow brine compositions and groundwater flow, and documenting on-going alteration processes in shallow sediments, particularly the tephra layers.

6.5 Previous Lithium Exploration

Of the above studies, only Everts (1969) is known to have analyzed samples for their lithium content. Water samples from 15 of 28 auger holes drilled by Everts (typically taken from an 8-ft (2.4 m) depth) were analyzed for lithium using atomic absorption by Foote Mineral Company of Silver Peak, NV. Lithium concentrations ranged from "trace" to 2.4 ppm (2.4 mg/L), with higher values concentrated in the northwestern margin of the playa (Figure 6-2).

The USGS conducted limited lithium exploration in Teels Marsh as part of a national lithium resource assessment in the 1970s that involved sampling and assessment of a variety of geological environments (Vine, 1976; Bohannon and Meier, 1976). In Teels Marsh, the USGS analyzed 127 surface and near-surface sediments for lithium, yielding concentrations ranging from 13 to 850 ppm Li, averaging 146 Li. Lithium concentrations were found to be somewhat higher near springs marginal to the playa, where concentrations ranged from 24 to 850 ppm, averaging 223 ppm Li (Bohannon and Meier, 1976). The 500 sediment analyses published by Bohannon and Meier (1976) came from 58 basins or valleys located throughout Nevada, and Teels Marsh had the fourth highest average lithium concentration and the highest single assay (850 ppm, excluding samples taken from bedrock mineralization in the Muddy Mountains of southern Nevada). The analytical method used by the USGS (Bohannon and Meier, 1976) was hydrofluoric acid dissolution followed by atomic absorption. Unfortunately, Bohannon and Meier did not provide maps or coordinates for their samples in their publication; consequently the locations of samples with respect to Dajin property are unknown, but it is considered likely that the most of samples came from within the property boundary, since the property covers the majority of the surface area of the marsh, including areas near springs.

As part of a geothermal exploration program, the GBCGE analyzed one playa groundwater sample for lithium from a 1-2 metre depth, obtaining 1.35 mg/L (Coolbaugh et al., 2006). This sample came from the area of past borate mining on the eastern margin of the playa, just outside Dajin property.

More recently, Dajin began exploration work at Teels Marsh in late 2014. Dajin's work includes auger sampling, Geoprobe drilling, gravity and seismic surveys, and is described in detail in section 9 below.

Nevada Energy Metals has a lithium property position southwest of Dajin's claims in Teels Marsh, and they completed a limited amount of exploration work in 2016. As described on their web site (https://nevadaenergymetals.com) this work included drilling 27 auger holes to depths of up to 3 metres, from which sediments were taken that yielded lithium concentrations ranging from 8.9 to 104.5 ppm. These holes are located outside the playa in areas covered in part by sand and gravel. For this reason, and because Dajin has taken its own auger samples from Dajin property on the playa, the Nevada Energy Metals results are not considered to have a bearing on the lithium potential of Dajin's property.

It is understood that other lithium exploration companies have explored Teels Marsh over the last several decades. In as far as the authors are aware, all of this exploration was surficial in character, potentially involving water and sediment samples taken from within a few metres of the surface. No evidence of drilling in the playa beyond shallow auger depths has been obtained from any source.

7 Geological and Hydrological Setting, and Mineralization

7.1 Regional Geologic Setting

Teels Marsh and Nevada lie in the western portion of the North American craton. Geologic events that have affected the craton in the last 700 million years include late Proterozoic continental rifting, subsequent deposition of ocean-water clastic sediments, volcanic rocks, and carbonate rocks during the Paleozoic and Mesozoic Eras, and a series of compressional events and thrusts associated with continental collisions which took place during the Paleozoic and Mesozoic (Stewart, 1980). The younger of these compressional events include the Nevadan and Sevier Orogenies, which left behind a series of plutonic intrusive rocks in eastern California and western Nevada (e.g., the Sierra Nevada batholith), that are deep expressions of volcanic arcs (Stewart, 1980).

During the Cenozoic Era, most of Nevada and parts of adjoining states experienced an episode of felsic volcanism and caldera development termed the "ignimbrite flareup", believed to have developed in response to foundering of a flat slab of subducted oceanic crust (Henry and John, 2014). This felsic volcanism is locally expressed in the Teels Marsh catchment basin by the late Oligocene Candelaria Hills sequence (Robinson and Stewart, 1984) of rhyolitic tuffs. After deposition of the tuffs, volcanism continued with a series of mostly intermediate to mafic volcanic rocks associated with the ancestral Cascade Arc (John et al., 2015).

Approximately coincident with cessation of the "ignimbrite flareup", extensional tectonics affected what is now Nevada, leading to the formation of "Basin and Range" topography, characterized in central Nevada by a series of north-south-trending horsts and grabens. This pattern of extension is interrupted by more complex topography along the western margin of the Basin and Range in an area termed the "Walker Lane", within which Teels Marsh lies. The Walker Lane is a zone of active right-lateral strike-slip faults whose motion is driven by dextral shearing of the Pacific plate against the North American plate; approximately 20-25% of that relative plate motion is accommodated by faults in the Walker Lane and the remainder by the San Andreas fault system in California (Bennett et al., 1998).

7.2 Teels Marsh Structural and Geologic Setting

This section (7.2) of the report is adapted from Coolbaugh (2016) and Coolbaugh and Faulds (2016), who reported on the geologic and structural settings of Teels Marsh in detail.

7.2.1. <u>Structural Setting of Teels Marsh</u>: In the vicinity of Teels Marsh, the Walker Lane is characterized by subparallel ENE-striking sinistral faults and NNE- to NE-striking normal faults; this region is termed the Mina Deflection. The Mina Deflection transfers a portion of dextral strike-slip motion from the western margin of the Walker Lane northward to the eastern portion of the Walker Lane (Oldow et al., 2008; Faulds and Henry, 2008).

The Mina Deflection contains four principal ENE-striking sinistral fault systems, which from north to south are the Rattlesnake, Excelsior Mountain, Candelaria, and Coaldale faults (Figure 7-1; Wesnousky, 2005). In most cases, these fault systems terminate on their western and eastern ends at subsidence basins that are located where the faults change from an ENE-strike to a more N- to NW-strike. Concomitant with the change in strike is a shift from sinistral motion to normal motion (Wesnousky, 2005). Basin development at the ends of these faults is driven by WNW-directed extension and/or clockwise block rotation (Wesnousky, 2005), and the relative importance of these two mechanisms has been debated (Wesnousky, 2005; Oldow et al., 2008; Ferranti et al., 2009).



Figure 7-1. Quaternary faults and geothermal systems in the Mina Deflection. The physical extent of the Mina Deflection encompasses the geothermal areas: 1 = Sodaville, 2 = Rhodes Marsh, 3 & 4 = North & south Teels Marsh, 5 = Redlich, 6 = SW Columbus Marsh; and thermal wells 7, 8, and 9 at Whiskey Flat, Huntoon Valley, and NE of Queen Valley, respectively. RSM = Rhodes Salt Marsh, TM = Teels Marsh, CSM = Columbus Salt Marsh, GF = Garfield Flat, HV = Huntoon Valley, RF = Rattlesnake Flat, MLB = Mono Lake Basin, LV = Long Valley caldera, AV = Adobe Valley, QV = Queen Valley, GV = Gabbs Valley, EX = Excelsior Mountain fault, GM = Gumdrop Hills fault, CL = Coaldale fault, BS = Benton Springs fault. Blue circles are geothermal systems outside the Mina Deflection with measured or estimated temperatures >70°C. Taken from Coolbaugh et al. (2005) and originally adapted from Wesnousky (2005).

Teels Marsh is located at the western mapped terminus of the Excelsior Mountain fault system (Figure 7-1). As mapped by Wesnousky (2005), the Excelsior Mountain fault bounds Teels Marsh basin on its northern and western margins. On the north side of Teels Marsh, the Excelsior Mountain fault is ENEstriking and displays sinistral strike-slip motion, but the fault abruptly changes strike in the NW corner of the basin, from which it bears SWS, forming a braided system of curving normal faults, some with steep range fronts up to 500 metres high (Figure 7-2). As a left-bend or step-over in a left-lateral fault system, the NNE-striking portion of the fault system represents an extensional environment that contributed to the formation of Teels Marsh basin (Wesnousky, 2005). The NNE strike is also ideally oriented in the modern-day stress field for extension (Ferranti et al., 2009).



Figure 7-2. Geologic structure of Teels Marsh. The basin-removed topographic model is based on modeling of a detailed gravity survey (Wright, 2015). Black lines are faults interpreted from the reflection seismic survey by Coolbaugh and Faulds (2016). Red lines are faults of the Excelsior Mountain fault system maped by Wesnousky (2005).

The stronger development of faulting on the north and west sides of the basin compared to the east and south sides has led to the development of a composite half-graben within the basin. Seismic profiles and detailed gravity modelling document a deep, central half-graben up to 2.5 km deep located beneath Teels Marsh, lying within an outer half-graben bounded by the Excelsior Mountain fault (Figures 7-2, 7-3). The pattern of faulting and development of these grabens are discussed further in section 9.6 "Seismic Survey and Updated Structural Model".

7.2.2. <u>Local Geology</u>: Pre-tertiary rocks exposed to the west, north, east, and south of Teels Marsh (Figure 7-4) include shales and chert of the Ordovician Palmetto Formation, interbedded Permian volcanogenic sedimentary rocks and volcanic breccias and mafic intrusions of the Mina Formation, Triassic siltstones of the Candelaria Formation, and Mesozoic clastic sedimentary rocks of the Dunlap Formation (Garside, 1982; Stewart, 1984; Stewart et al., 1984a, 1984b). These formations are intruded on the north and west sides of Teels Marsh by plutonic rocks ranging in composition from diorite to granite (including granite of Whiskey Flat, granite of Silver Moon, granodiorite of Huntoon Valley, and diorite).



Figure 7-3. Longitudinal reflection seismic line 4 in Teels Marsh, looking northwest. The surface trace of this line is shown in Figure 7-2. Red lines are interpreted faults, and the yellow line is the interpreted contact between basin-fill deposits above and rocks below. Gray line is the basin fill-rock contact from the basin-removed topographic elevation model of Wright (2015). QTs = Quaternary and Tertiary sediments, MzTu = undivided Mesozoic and Tertiary rocks. Labels to left and right of figure are depth measured in thousand-foot-intervals, with lowest depth of 10,000 feet (3,048 meters). Vertical to horizontal scale is 1:1. Figure taken from Coolbaugh and Faulds (2016).

The pre-Tertiary rocks are overlain by a sequence of Oligocene to Miocene silicic tuffs comprising the Candelaria Hills sequence (Figure 7-4, Robinson and Stewart, 1984). The tuffs are overlain in turn by andesitic volcanic rocks, which in turn are overlain by Tertiary basalts with minor intercalated tuffs and sedimentary rock including diatomite (Stewart, 1984). The Tertiary volcanic rocks comprise the majority of surface and near-surface rocks within the catchment basin of Teels Marsh, most of them lying south of Teels Marsh. The Candelaria Hills tuffs, because of their felsic composition, are a potential source of lithium introduced to groundwater. A measured tuff section south of Teels Marsh is 150 metres thick with an unexposed base and is composed of at least 10 distinct units. The eruptive source of these tuffs is believed by Robinson and Stewart (1984) to lie in the Candelaria Hills approximately 20 to 25 km southeast of Teels Marsh.

Quaternary rocks include alluvial gravels, alluvial fan deposits, and lacustrine clays, clastics, volcanic tephra, and evaporites. Basin fill deposits in Teels Marsh, as documented in shallow auger holes and pits (Hay, 1964; Everts, 1969; Drew, 1970; Taylor and Surdam, 1981; Evans, 2015), include variably colored, locally sulfide-bearing clay, sands, silts, evaporites, and air-fall tuff (tephra). The evaporites include sodium chloride, trona, burkeite, gaylussite, and the boron minerals borax, tincalconite, and teepleite (Everts, 1969; Crowley, 1991; Kratt et al., 2006). Gaylussite and northupite have also been identified in shallow cores (Drew, 1970; Jones et al., 2015).



Figure 7-4. Geologic map of the Teels Marsh catchment basin. Lithologic units have been adapted from Crafford (2007), with fault data added from Wesnousky (2005) and Coolbaugh and Faulds (2016).

7.3 Mineralization and Alteration

7.3.1. <u>Geothermal Activity</u>: Shallow thermal groundwater occurs outside the northwest and southwest margins of Teels Marsh (Figure 6-1). This geothermal activity appears focused along fault intersections and curving flexures of normal faults within the Excelsior Mountain fault zone (Coolbaugh et al., 2013). This is consistent with the tendency of active geothermal systems of the Great Basin to form along the structurally complex portions of extensional faults (Faulds and Hinz, 2015).

Fluid geothermometry from thermal water samples collected from Geoprobe holes drilled in 2010 predict subsurface fluid temperatures of 140-155°C or higher (Coolbaugh et al., 2013). The thermal waters are dilute sodium-chloride-sulfate fluids low in chloride content (200-300 mg/L, Coolbaugh et al., 2013), very different compositionally from the high-salinity brines that characterize the playa environment. This indicates that geothermal fluid circulation at depth is largely confined to bedrock beneath and marginal to the basin and that high-salinity basin groundwater is not contributing significantly as a source of fluids for the deeper thermal waters. Nevertheless, a portion of thermal fluids could be entering unconsolidated sediments in the basin and mixing with saline brines. Evidence for this includes anomalous geothermometry from cold springs that flow into the playa and the presence of the surface borate deposits on the east side of the playa. Borate minerals have been correlated at a regional scale with geothermal activity (Barker and Lefond, 1985; Coolbaugh et al., 2006), but no thermal waters have yet been encountered in the immediate vicinity of the Teels Marsh borate areas on the eastern side of the playa.

In addition to the above described geothermal activity, an area of thermal springs associated with calciumcarbonate travertine terraces occurs over a broad 6 km x 2 km area approximately 4 km south of Teels Marsh and within the Teels Marsh catchment basin (Figure 6-1, Stewart, 1984; Stewart et al., 1984b). These springs occur along faults near the western termination of the Candelaria fault zone mapped by Wesnousky (2005). Measured temperatures of these springs range from 18 to 35°C. A small area of travertine in the extreme southwest corner of Teels Marsh basin is associated with 2-metre temperatures as high as 25°C (see point "C", Figure 6-1), suggesting that some of these sodium carbonate-rich thermal waters are directly entering the playa environment. Additional evidence of entry of sodium-carbonaterich thermal groundwater is provided by geochemical trends in shallow brine samples (see section 9.1 for further discussion).

7.3.2. <u>Borate Mineralization</u>: As mentioned in the preceding section, borates were mined in the late 1800s in the eastern portion of the playa (Figure 6-1). The borates consist of efflorescence crusts composed primarily of borax and its surface dehydration product, tincalconite (Papke, 1976); teepleite has also been identified (Crowley, 1991). The mineralogy is different from that of borates mined from nearby playas in southwestern Nevada, including Columbus Marsh, Rhodes Marsh, and Fish Lake Valley, where the principal borate mineral was "cottonball" ulexite. Ulexite was more difficult to mine and refine into borax in the 1800s (Papke, 1976), in part explaining why the borates at Teels Marsh were worked more extensively.

The formation of borax (a sodium borate) instead of ulexite (a sodium-calcium borate) at Teels Marsh has been attributed to the presence of sodium carbonate in the brine, which suppresses the formation of ulexite (Papke, 1976). This relationship was understood at an early date, likely because sodium carbonate was used as a chemical additive in the refinement of ulexite ores to facilitate dissolution (Papke, 1976). The shallow playa brines are relatively rich in dissolved carbonate species (Papke, 1976; section 10 below), with sodium carbonate and bicarbonate comprising up to 28% by weight of total solutes in saline brines at depths of 55 to 95 feet (16.8 to 29.0 metres). The sodium carbonate minerals trona and burkeite are also present in the surface efflorescence crusts at Teels Marsh (Everts, 1969; Crowley (1991), and except for restricted areas where borates are also important, trona and burkeite are the most abundant surface salt minerals after halite.

7.3.3. Lithium and Boron in Brines and Sediments: Lithium-bearing playa brine is the primary economic objective of the Dajin exploration program at Teels Marsh. The subsurface of the playa clearly

contains groundwater brines, as evidenced by Geoprobe drilling that encountered concentrations as high as 87,000 mg/L chloride (see section 10 below). Further evidence of brines is provided by the presence of shallow salt layers encountered in auger and Geoprobe drilling and by the presence of efflorescent salts at the surface. Compositionally, the shallow brines are broadly characterized as sodium chloride-sulfate and sodium chloride-carbonate brines; the carbonate-rich brines fit a "moderate carbonate type" of saline lake classification described by Zheng and Liu (2009).

Lithium concentrations in most of the shallow subsurface (<3 metres) brines at Teels Marsh are less than 10 mg/L. Higher grades occur in the northwest corner of the playa, where concentrations range up to 79 mg/L lithium (Figure 7-5). Lithium concentrations could be higher at greater depths, because near-surface brines at times suffer dilution from periodic surface flooding from thunderstorms. At Clayton Valley, lithium-rich brines were not discovered until subsurface exploration began (Davis, 1986).



Figure 7-5. Lithium concentrations in shallow auger groundwater sampled by Dajin.

Shallow playa sediments at Teels Marsh have lithium concentrations higher than that found in many closed basins in Nevada (Bohannon and Meier, 1976). Sediments sampled by Dajin from shallow auger and Geoprobe holes contain from 24 to 740 ppm Li (see section 9); similarly, shallow sediments sampled by the USGS in Teels Marsh ranged from 13 to 850 ppm Li (Bohannon and Meier, 1976). Lithium concentrations in auger sediment samples progressively increase from northeast to northwest in the playa (Figure 7-6), with the highest concentrations approximately coinciding with elevated shallow lithium brine concentrations (Figure 7-5). These analyses confirm that anomalous concentrations of lithium are present in the basin, lending plausibility to the presence of lithium brines in unexplored deeper portions of the basin.

The specific residence of lithium in the shallow sediments remains unclear. Lithium has a known affinity for magnesium clays in lacustrine environments, forming minerals such as hectorite (a smectite-group mineral) (Asher-Bolinder, 1991), and, under hydrothermal conditions, tainiolite (Morissette, 2012). At Teels Marsh, limited x-ray diffraction and chemical analyses (Jones et al, 2015) show a lack of correlation



Figure 7-6. Lithium concentrations in shallow auger sediments sampled by Dajin. Orinary kriging was used to interpolate lithium concentrations using a maximum of 12 input points for each grid cell, after averaging all lithium concentrations for a given auger site.

of lithium with smectite, potassium, or illite/mica, arguing against the presence of hectorite or tainiolite. Lithium does correlate with magnesium, sodium, boron, and the boron mineral searlesite. Searlesite has been identified as an alteration product of volcanic tephra at Teels Marsh (Hay, 1964; Taylor and Surdam, 1981), but is not known to be a specific carrier of lithium. One hypothesis is that circulating lithium and boron-bearing brines may have reacted with volcanic ash layers in the subsurface to form searlesite, zeolite minerals (see next paragraph), and an as-of-yet unidentified magnesium and lithium-bearing clay.

7.3.4. Alteration: Multiple thin tephra layers (ash) have been encountered in shallow auger holes at Teels Marsh, and they have been variably altered to zeolites (phillipsite with lesser analcime, chabazite, and clinoptilolite), gaylussite, calcite, gypsum, and searlesite (Hay, 1964; Everts, 1969; Drew, 1970; Taylor and Surdam, 1981; Jones et al., 2015). This alteration is an authigenic process in which volcanic glass

reacts with alkaline brines to form the above mentioned minerals (Hay, 1964). The degree of alteration of the tephra is spatially variable, but a general correlation has been observed between underlying areas of altered tephra and areas of more strongly developed efflorescent salt layers at the surface (Hay, 1964). This in turns suggests that alteration has been caused by the action of groundwater as it flows towards the surface to replace evaporated fluids. To the authors' knowledge, the impact of zeolitization on the permeability of the tephra layers has not been quantified.

7.4 Hydrogeologic Setting

The hydrogeologic setting of a closed basin bears on its lithium brine potential. Lithium brines develop slowly over time through the effects of evaporative concentration of surface waters and upwelling groundwater in closed basins. Consequently, the magnitude of lithium enrichment is affected by the age of the catchment basin, size of the catchment basin, evaporation rates, mass flux of dissolved lithium in groundwater and surface water entering the playa basin, and the availability of source rocks containing lithium that can be dissolved by groundwater. Geothermal systems may also play a role by enhancing the ability of groundwater to leach lithium from surrounding rocks (Houston et al., 2011; Munk et al., 2015).

The presence of permeable aquifers is also important for the commercial extraction of lithium brines. As evidenced at the Clayton Valley lithium operation located 85 km to the southeast, such aquifers can potentially form in clastic rocks (conglomerates), volcanic tephra layers, salt beds, and calcium carbonate tufa deposits.

7.4.1 <u>Basin Characteristics</u>: The structural basin within which Teels Marsh lies began forming approximately 3 Ma ago, coincident with the development of the Mina Deflection structural zone (Oldow, et al., 2008). The current elevation difference between the lowest bounding divide and the floor of Teels Marsh is 915 feet (278 metres), a height greater than the depth of any lakes that would have formed during the Pleistocene (Van Denburgh and Glancy, 1970), making it unlikely that periodic surface spillage from temporary lakes (e.g. glacial Lake Lahontan) in Teels Marsh into adjacent basins occurred during wet Climate periods.

The Teels Marsh catchment basin has a surface extent of 810 km². In addition to receiving recharge from this primary catchment, Teels Marsh may also receive recharge from the adjacent Huntoon Valley to the west, which lies at a higher elevation and has an apparent imbalance between estimated recharge and estimated evapotranspiration (Van Denburgh and Glancy, 1970). This imbalance suggests that Huntoon Valley loses groundwater to adjacent basins, of which Teels Marsh is a prime candidate (Van Denburgh and Glancy, 1970) because of its proximity to Huntoon Valley and the presence of Quaternary faults that connect the two. The catchment area of Huntoon Valley covers 300 km².

7.4.2 <u>Potential Sources of Lithium</u>: Felsic pyroclastic rocks (rhyolite flows and tuffs) are potential sources of lithium because their initial glass phases commonly have high lithium concentrations (34 to 3,400 ppm Li, mean of 84 ppm for continental interior obsidians, Macdonald et al., 1992) and because much of this lithium may be available to groundwater during the weathering and devitrification of volcanic glass (Price, et al., 2000; Hofstra, et al., 2013). Felsic pyroclastic rocks in the Teels Marsh catchment basin include the Candelaria Hills sequence of Oligocene to Miocene silicic tuffs (see section on Local Geology), and Quaternary air fall tuffs from the Long Valley Caldera (e.g., the Bishop Tuff) and Mono Lake areas. The Candelaria Hills sequence has a measured thickness of at least 150 metres in the catchment basin south of Teels Marsh (Robinson and Stewart, 1984) and these rocks are projected to underlie much of the

southern half of the catchment. Published information on the lithium concentrations of these rocks was not found by the authors.

Quaternary tephra layers (air fall tuff) are also potential sources of lithium. Multiple tephra layers have been identified in the uppermost 20 feet (6 metres) of Teels Marsh sediments (Hay, 1964; Taylor and Surdam, 1981), and tephra layers comprise important aquifers in the Clayton Valley lithium operation. The largest and thickest known Quaternary tephra is the Bishop Tuff, erupted from the Long Valley Caldera north of Bishop, California. At Clayton Valley, the Bishop Tuff has thicknesses ranging from 5 to 30 feet (1.5 to 9.1 metres) (Zampirro, 2004). Given the relative proximity of Teels Marsh to the Long Valley Caldera (70 km to the southwest), the Bishop Tuff is likely to have a significant thickness in Teels Marsh basin, but it is not exposed at the surface. Melt inclusions in the Bishop Tuff, which are considered representative of original chemical compositions prior to surface weathering, average 74 ppm Li (based on regional analyses outside the Teels Marsh basin, Hofstra et al., 2013), suggesting that the Bishop Tuff is a potential source of lithium for brines.

7.4.3 <u>Aquifers</u>: Little is known about the presence and distribution of aquifers in the subsurface at Teels Marsh, because most auger holes are less than 40 feet (12 metres) deep, and cores from Dajin Geoprobe holes were taken from depths not exceeding 25 feet (7.6 metres). Based on geomorphologic and geographic location similarities with other basins in west-central Nevada, including Clayton Valley to the southeast, permeable horizons could include clastic layers, especially coarser clastics such as sands and gravels with a low clay content, as well as layers of volcanic tephra and evaporite beds. Of these, coarse clastic layers and tephra are likely to be most important.

Coarse clastic layers, including conglomerates, may exist at Teels Marsh because the distance from the marsh to adjacent mountains is relatively short and the topographic profile from the range to the basin is relatively steep. This geomorphology is characteristic of "immature basins" and such basins commonly have a significant component of clastic permeability (Houston et al., 2011).

Quaternary tephra layers could also provide significant sources of permeability, as is the case at Clayton Valley (Davis et al., 1986; Zampirro, 2004). These tephra were sourced from the Long Valley Caldera and Mono Craters areas of eastern California, and other young volcanoes of the Cascade Range. The most important tephra aquifer at Clayton Valley is the Bishop Tuff (Zampirro, 2004), erupted from the Long Valley caldera. Given the regional distribution of this tephra throughout much of the western United States (Izett et al., 1988), and the relative proximity of the Long Valley caldera, which lies 70 km southwest of Teels Marsh and 100 km west of Clayton Valley, it is likely that significant thicknesses of this tephra occur in the subsurface in Teels Marsh basin. Nevertheless, until deeper drilling is completed and flow tests are made, the presence of viable aquifers from which to pump brines at economic rates remains unknown.

7.4.4 <u>Geothermal Activity</u>: The role that geothermal activity plays in the development of lithium-brines in closed basins is debated. Evidence suggests that much of the lithium in glassy felsic volcanic rocks is efficiently removed during non-thermal devitrification and weathering processes (Price et al., 2000; Hostra et al., 2013). On the other hand, it is argued that elevated groundwater temperatures facilitate the extraction of lithium from source rocks (Houston et al., 2011). High-temperature geothermal fluids are commonly enriched in lithium (Kesler et al., 2012), and many lithium-brine deposits and lithium-rich clay deposits occur in proximity to past or present geothermal systems (e.g. Clayton Valley, (Davis et al., 1986; Zampirro, 2004), McDermitt, NV (Eggleston and Hertel, 2008), and the original hectorite occurrence at Hector, CA (Ames et al., 1958)).

Geothermal waters surrounding the western margin of Teels Marsh have lithium concentrations of 0.6 to 0.8 mg/L (unpublished data, Geothermal Development Associates). These concentrations are lower than those of lithium brines, but they are typical of thermal groundwater in Nevada (average of 0.66 mg/L, 638 analyses, GBCGE unpublished data (http://www.nbmg.unr.edu/Geothermal/GeochemDatabase.html)), and they are distinctly higher than Li concentrations in non-thermal groundwater in Nevada (average of 0.18 mg/L, 765 analyses, GBCGE unpublished data

(http://www.nbmg.unr.edu/Geothermal/GeochemDatabase.html)), and even higher than average lithium concentrations reported for municipal water supplies in the U.S. (<0.05 mg/L, Durfor and Becker, 1964). For these reasons, on-going geothermal activity is viewed as a favourable factor for lithium-brine formation. Evaporation trends in shallow brine geochemical data at Teels Marsh support the concept that lithium-bearing geothermal waters are entering the basin brine system (see section 9), but the magnitude of lithium mass flux of geothermal groundwater into Teels Marsh remains undefined.

7.4.5 <u>Fluid Flow Patterns</u>: Rain and snow waters in the Teels Marsh catchment basin are guided via shallow groundwater and ephemeral streams down the hydrologic gradient to Teels Marsh, which occupies the lowest elevation part of the catchment. At the playa, these fluids, as well as a portion of more deeply circulating geothermal water, evaporate in the hot, dry desert environment, leaving behind residual brine concentrated in dissolved salts. As the brine becomes progressively concentrated, salt minerals precipitate. At Teels Marsh, these minerals include halite, trona, burkeite, borates, and other less common minerals. The high solubility of lithium in brine solutions, combined with its generally low concentration relative to major rock-forming solutes, enables it to remain in solution even while other salts, including borates, precipitate.

Specific paths of playa brine evolution can be complex and diverse. Some brine may re-mix with incoming fresh groundwater or ephemeral stream water, whereas at other locations and times, salt brines may sink to depths in the playa basin because of their greater density relative to fresher water. Individual tephra layers or clastic sediment layers can serve either as aquifers to transport incoming groundwater and geothermal water, or they can store brines concentrated by evaporation. Faults may act as conduits connecting one subhorizontal aquifer to another, or they can serve as barriers to flow, enabling lithiumbearing brines to accumulate in some structural blocks without contamination from dilute groundwater. Finally, conductive heating by underlying geothermal fluids could potentially induce circulation (analogous to convective overturn) in a portion of basin brines that lie within hydrologically connected regions.

The above-mentioned processes can lead to the development of a heterogeneous subsurface distribution of lithium in closed basins. Some structural blocks and some aquifers are likely to have significantly higher lithium concentrations than others, depending on the interplay between evaporative concentration, salt precipitation, brine sinking, mixing with incoming groundwater, episodic surface flooding, and groundwater fluid circulation.

8 Deposit Type

The deposit type sought at Teels Marsh is a "lithium brine" (Bradley et al., 2013). Lithium brines commercially exploited today occur as shallow saline lakes (China) and/or as saline aquifers beneath dry lakes (North and South America, i.e., playas (English terminology) or "salares (Spanish terminalogy)). These lakes or playas occur in closed basins without external drainage, in dry desert regions where evaporation rates exceed stream and groundwater recharge rates, preventing lakes from reaching the size necessary to form outlet streams or rivers. Evaporative concentration of surface water over time in

these basins leads to residual concentration of dissolved salts (Bradley et al., 2013) to develop saline brines enriched in one or more of the following constituents: sodium, potassium, chloride, sulfate, carbonate species, and, in some basins, rare metals such as boron and lithium. When lithium concentrations exceed 100-200 mg/L, the "lithium" brines can be processed through a two-step process of 1) evaporative concentration in surface solar ponds, and 2) treatment in a chemical processing plant (e.g., Davis et al., 1986). Currently, new technologies are being developed that may circumvent the solar pond step.

Most playa waters do not have economic concentrations of lithium. Favourable conditions for the development of lithium-rich brines include: 1) arid climate, 2) a closed basin with 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, and 7) sufficient time to concentrate a brine (Bradley et al., 2013).

Teels Marsh meets, or is likely to meet, all of the conditions mentioned above. The basin occurs in an arid climate (condition 1) in a closed basin with a playa (condition 2), in an area of tectonically driven subsidence (condition 3) with associated geothermal activity (condition 4). Condition (5), suitable source rocks, as discussed in section 7.4.2, could be provided at Teels Marsh by the presence of mid-Tertiary ash flow tuffs associated with the adjacent Candelaria volcanic center, as well as by Quaternary felsic air-fall tuffs related to the Bishop Caldera and Mono Lake. Condition (6), the presence of aquifers, as discussed in section 7.4.3, could be provided by subsurface air-fall tuffs (tephras) and/or clastic sedimentary layers resulting from intermittent floods from the adjacent alluvial fans. The presence of either type of stratigraphy will not be known with certainty until the basin has been tested by drilling. Condition (7), time to concentrate brine, should be met by the 3-million-year period over which tectonic subsidence in the Mina Deflection (and Teels Marsh) is believed to have taken place (Oldow et al., 2008). Additionally, this part of Nevada has been repeatedly subjected to drying conditions during multiple interglacial periods.

The closed basins that host lithium brines around the world have been divided into two types by Houston et al. (2011); mature basins and immature basins. Mature basins have relatively low precipitation rates relative to evaporation rates, relatively thick evaporite layers dominated by halite, and permeability is hosted largely by near-surface evaporites (Houston et al., 2011). Immature basins have somewhat higher precipitation to evaporation ratios compared to mature basins, a greater abundance of clastic sediments, and permeability is commonly hosted by clastic sediments (Houston et al., 2011). The Atacama and Hombre Muerto lithium brines in Chile and Argentina, respectively, occur in mature basins, whereas the Clayton Valley, Nevada (Spanjers, 2015) and recently developed Olaroz-Cauchari, Argentina lithium brines (Houston et al., 2011) occur in immature basins. Teels Marsh, similar to Clayton Valley, fits the definition of an immature basin based on the relative abundance of fine clastic layers relative to evaporite layers in shallow auger holes.

Most lithium brines currently in production in North and South America have sodium-chloride-sulfate (Na-Cl-SO₄) or sodium-chloride-calcium (Na-Cl-Ca) compositions with low concentrations of magnesium. Magnesium is a deleterious element that interferes with economical extraction (Kesler et al., 2012). Lithium brine being extracted from one basin in China (Zabuye, Zheng and Liu, 2009) contains relatively high concentrations of carbonate, such that it could be classified as a Na-Cl-carbonate brine, or a "carbonate-type" brine according to the nomenclature described by Zheng and Liu (2009). As documented in section 10 below, shallow brines at Teels Marsh include Na-Cl-SO₄ and Na-Cl-carbonate types, and have exceptionally low Mg concentrations (< 5 mg/L).
9 Exploration

Dajin initially staked claims at Teels Marsh in the fall of 2014. Since that time, the following surface and near-surface exploration activities have been completed on the property by Dajin:

- 1) Auger geochemical sampling to depths of 1-3 metres across the playa, comprising a total of 148 sediment samples and 73 groundwater samples,
- 2) Detailed gravity measurements of the playa basin and surrounding areas, comprising 415 new stations,
- 3) Custom processing of a regional magnetic survey,
- 4) Detailed modelling of the gravity data to predict the thickness of unconsolidated sediments in the basin and provide constraints on the location of faults,
- 5) Creation of a preliminary structural model based on the gravity modelling and known fault patterns,
- 6) Reflection seismic surveying, comprising 4 lines with a total length of 19.5 km, and,
- 7) Interpretation of the seismic survey to create a revised basin-depth and structural model.

Geoprobe drilling of 10 holes to depths of up to 200 feet (61 metres) has also been completed and is described in succeeding section 10.

9.1 Auger Geochemical Sampling

A systematic shallow auger program sampled sediments and groundwater at shallow depths. The auger sampling was conducted in two campaigns. The first campaign, conducted in late 2014 and early 2015 by Western Geoscience, Inc. (Evans, 2015), consisted of 76 auger holes distributed over most of the playa (Figures 7-5, 7-6). These holes were drilled with a combination of hand tools, a hand-auger, and a motorized hand auger to a depth of 9 feet (2.7 metres). A water sample was extracted after each hole was completed. Where possible, two sediment samples were taken from each hole; an "A" sample representing the interval from the surface down to the water table, and a "B" sample representing the interval from the bottom of the hole. A total of 148 sediment and 73 brine samples were taken.

A second auger campaign of 20 holes focused on the northwest corner of the playa to provide more detailed coverage where lithium groundwater concentrations from the first campaign were highest (Figures 7-5, 7-6). These holes were drilled by Pediment Gold LLC in April, 2016 using both hand and motorized augers. Hollow tubing equipped with valves was used for extraction of water from the bottom of the holes, which ranged from 3.0 to 12.5 feet (0.9 to 3.8 metres) deep and averaged 8.9 feet (2.7 metres) deep. A sediment sample was taken from the bottom of each hole.

The majority of auger groundwater samples (73%) are brines with sodium concentrations exceeding 10,000 mg/L (the approximate concentration of sea water) and ranging up to 140,000 mg/L. Auger groundwater samples with less than 10,000 mg/L Na come from the margins of the playa on all sides, where incoming groundwater and storm water from the catchment basin presumably enter the playa to mix with and dilute the playa brines.

Lithium concentrations in auger sediments increase progressively from northeast to northwest in the playa (Figure 7-6), and lithium concentrations in auger groundwater are highest in the extreme northwest corner of the playa, ranging up to 79 mg/L (Figure 7-5). The source of elevated lithium concentrations in

the northwest is believed to be geothermal fluids, because 1) thermal groundwaters with temperatures of up to 97°C are present at shallow depths near the northwest corner of the playa, and 2) solute ratios of the geothermal waters match the ratios observed in the playa brines (Figure 9-1).



Figure 9-1. K/Na and SO₄/total carbonate ratios of groundwater and spring samples from within and adjacent to Teels Marsh. Geothermal fluids northwest of the playa (open red circle) have solute ratios similar to that of auger brines in the northwest corner of the playa (small red circles). Auger fluids 1 and 2 are from Dajin's second auger sampling campaign. Shallow ash samples are from Taylor and Surdam (1981) and Everts samples from Everts (1969). North playa, Mg-SO4, and South travertine fluids from Smith and Drever (1976). Teels geothermal fluid and South playa spring samples from Geothermal Development Associates (unpublished data). For other samples, see text.

Solute ratios and evaporation trends provide evidence that groundwater of diverse compositions are entering the playa environment (Figures 9-1 to 9-3). Lithium-bearing brines of possible geothermal origin from the northwest corner of the marsh have higher Li/Na ratios (Figures 9-2, 9-3), higher sulfate/total carbonate ratios (Figure 9-1), and lower K/Na ratios (Figure 9-1) than shallow brines found elsewhere in the playa. Thermal sodium-carbonate springs south of Teels Marsh (measured temperature up to 35°C) have distinctly lower sulfate/total carbonate ratios and higher K/Na ratios (Figure 9-1). Entrance of these sodium-carbonate waters into the playa environment could help explain the diversity of groundwater solute compositions (Figure 9-1).



Figure 9-2. Lithium and sodium concentrations of groundwater sampled during Dajin's second auger drilling campaign. Samples that cluster in the northwest corner of the playa (red circles) fall along a single evaporation trend suggesting that they come from a single source fluid with a lithium/sodium ratio distinct from other auger brine samples.

The highest concentrations of lithium encountered in auger groundwater come from relatively dilute brines, with sodium and chloride concentrations not exceeding 57,000 and 68,000 mg/L, respectively. If a best-fit evaporation trend in the lithium-bearing brines (Figure 9-2) is extrapolated to the highest sodium and chloride concentrations observed in the shallow brine data (which are probably at or near halite-saturation), the predicted lithium concentration would be in the range of 140-195 mg/L. Possible explanations for the lack of such observed higher-concentration lithium brines at Teels Marsh include 1) mixing of geothermally-derived brines with brines of other origins in the playa, 2) precipitation of lithium onto minerals in the enclosed sediments, and 3) sinking of denser halite-saturated brines to greater depths in the subsurface.

9.2 Gravity Survey

A detailed gravity survey was completed in order to estimate the thickness and distribution of basin-fill sediments at Teels Marsh. The survey was completed by Magee Geophysical Services LLC in February and March, 2015 (Magee Geophysical Services LLC, 2015). Gravity was measured at 415 new stations, most of which (307 stations) followed a grid spacing of 250 x 500 metres, with the remaining 108 stations acquired along roads to provide a more regional context (Figure 9-4). A LaCoste & Romberg Model-G gravimeter was used, and topographic control was provided by a Trimble Real-Time Kinematic (RTK) and Fast-Static GPS.

9.3 Gravity and Magnetic Processing

The gravity data were processed by Wright Geophysics in March, 2015. The 415 new gravity stations were merged with 96 public domain USGS stations and processed to Complete Bouguer Anomaly (CBA) using densities ranging from 2.00 to 3.00 g/cc, in steps of 0.05 g/cc, from which a density of 2.50 g/cc was selected as most representative of this part of Nevada and used for subsequent processing (Wright, 2015). Further processing was used to create a first vertical derivative of the CBA, a smoothed regional CBA map, and a residual gravity map produced by subtraction of the smoothed regional grid from the CBA (Figure 9-4, Wright, 2015).



Figure 9-3. Li/Na and K/Na ratios of groundwater sampled during Dajin's second auger drilling campaign. Samples that cluster in the northwest corner of the playa (red circles) have solute ratios similar to those of geothermal fluids lying to the northwest of the northwest corner of the playa (see red circles at area "A" on Figure 6-1 for location of geothermal fluid samples).

An airborne magnetic survey previously flown for the US Geological Survey in 2000 and 2001 by Fugro Airborne Surveys (Schacht, 2001) was also digitally processed by Wright (2015). These data provided useful information on the subsurface distribution of magnetized rocks, especially in the central portion of the basin. A Cessna Caravan fixed-wing aircraft was used to fly lines with a north-south spacing of 250 m with east-west tie lines spaced 1,500 m apart. The data were acquired using a Scintrex CS-2 cesium vapour magnetometer and Sercel NR-103 GPS system. The data were diurnally corrected and the International Geomagnetic Reference Field (IGRF) was removed, and Gaussian filtering was used to produce a total magnetic intensity (TMI) product (Wright, 2015). The TMI was then used to generate reduced to pole (RTP) map (Figure 9-5), which was smoothed with an upward continuation to 300 m to produce a regional

grid, which was then subtracted from the RTP to produce a residual magnetic map. A total horizontal gradient was calculated from the residual map, and a vertical derivative was calculated from the RTP grid (Wright, 2015).

The most notable feature identified on the magnetic field maps is a north-south-trending zone of higher field strength in the west-central portion of the basin (Figure 9-5). This feature is interpreted to indicate the possible presence of mafic volcanic rocks in the subsurface, either as flows lying on basement rocks, flows intercalated with sediments, or mafic volcanic rich sediment layers in the deeper portions of the basin.



Figure 9-4. Residual gravity map of Teels Marsh. Data processing and modeling were completed by Wright (2015). See text for details.

9.4 Basin Modelling

A 3D basin model of the thickness of unconsolidated sediments was constructed for Dajin by Wright (2015) using the detailed gravity data. The modelling procedure utilized the approach of Cordell and Henderson (1968) and involved iteratively matching the predicted gravity anomaly produced by a given basin

configuration to the observed residual CBA gravity anomaly. In lieu of drill-hole data or rock density measurements, average densities of 2.50 g/cc and 2.10 g/cc were assigned to bedrock and basin fill, respectively, resulting in a density contrast of -0.4 g/cc. Products of the modelling include digital maps of basin fill thickness, elevation of the top of consolidated bedrock (Figure 7-2), and the horizontal gradient of basin fill thickness (Wright, 2015).

The detailed gravity model predicts the presence of a deep bedrock basin beneath Teels Marsh with approximate dimensions of 6.5 km in a NE-SW direction, 1 to 2.4 km in a NW-SE direction, and a maximum modelled depth of 2.5 km (Figure 7-2). For its size in map-view, Teels Marsh basin is remarkably deep, creating a larger target volume than is readily apparent from the size of the playa itself.



Figure 9-5. Reduced-to-pole magnetic survey map for Teels Marsh. Data processing and modeling were completed by Wright (2015). See text for details.

9.5 Preliminary Structural Model

A preliminary structural model of Teels Marsh was constructed for Dajin by Coolbaugh (2016). The objectives of this initial model were to estimate the location and size of fault blocks, assess potential sources and sinks for lithium, better understand the tectonic processes responsible for formation of the basin, and gain insight into the depth and character of possible aquifers.

The relatively deep, narrow character of the bedrock basin imaged by the gravity modelling was used to infer the presence of a northeast-striking graben fault system. Irregularities in the strength of the gravity field were used to infer the presence of cross-faults and fault intersections, which have the potential effect of dividing the basin into several fault blocks (Coolbaugh, 2016). This structural model was updated after completion and interpretation of a seismic survey (see next sub-section 9.6).

9.6 Reflection Seismic Survey and Updated Structural Model

A reflection seismic survey totaling 19.5 km (12.1 mi) in length was completed by Eagle Exploration Inc. in May and June, 2016. The survey consisted of three NW-SE lines that cross the inferred graben at nearly right angles, and one NE-trending longitudinal line that follows the long axis of the graben (Figure 7-2). The survey was custom-designed for the soft ground conditions and anticipated basin depth of Teels Marsh. The energy source consisted of 1/2 pound dynamite charges. One to 10-hertz natural frequency geophone receivers were placed at 55 foot (16.8 metre) intervals, and iSeis Sigma 32-bit wireless recorders were used (Schwinkendorf, 2016).

Data processing was handled by Columbia Geophysical, LLC. The processing steps, described by Schwinkendorf (2016), included post-stack time migration and conversion from time to depth sections using the stacking velocity field. Because no independent information on subsurface seismic velocities is available, the estimated depths are approximate, with a possible error of +/- 10 to 15% (Coolbaugh and Faulds, 2016).

A structural interpretation of the four seismic sections was completed by Dr. James Faulds of the NBMG at UNR and Dr. Mark Coolbaugh of Dajin Resources Corp. in October, 2016 (Coolbaugh and Faulds, 2016). Interpretation of the seismic profiles reveals that the deep basin beneath Teels Marsh is a composite half-graben, with the dominant bounding normal faults located on the northwest side of the graben (Figures 7-2, 7-3, Figures 9-6 to 9-8). This composite graben consists of a centrally located half-graben nested within a larger half-graben whose primary fault boundaries are defined by the range-bounding Excelsior Mountain Fault on the west and north margins of the Teels Marsh valley (Figure 7-2). Sediments within the interior portion of the half-graben dip northwesterly to westerly, in response to listric-normal motion along the dominant north to northeast-striking, southeasterly dipping faults. Several minor antithetic and synthetic faults inferred from the seismic data may subdivide the basin into smaller fault blocks (Figure 7-3, Figures 9-6 to 9-8). Although total displacement along these subsidiary faults is likely to be minor, it could be sufficient to form barriers to fluid flow along individual sedimentary aquifers, or to provide local zones of communication from one fault block to another.

A number of reflective horizons are visible in the seismic profiles in the unconsolidated sediments. No drilling is available with which to identify the geologic composition of the reflectors, but the reflector patterns resemble those in nearby Clayton Valley, where drill-hole geologic logs have been matched to seismic sections (Spanjers, 2015). Similar to Clayton Valley, the reflectors at Teels Marsh may correspond to contacts between coarse clastic layers, tuff beds (that may or may not be lithified), and clay layers. In general, tephra horizons have not generated unique reflection signatures at Clayton Valley, but they can be traced across the seismic profiles where well data are available to provide the initial identification

(Spanjers, 2015). A similar procedure for identifying aquifers at Teels Marsh should be possible once deeper wells are drilled.

The consistent WNW-dip of basin sediments in Teels Marsh makes it possible to target deeper or shallower portions of a potential aquifer with drilling. The entry of geothermal fluids into the basin from the west could be facilitated by the dominant westerly dip, since buoyant thermal fluids should rise upwards and travel outwards away from their presumed source on the western margin of the basin. Relatively dense halite-saturated, and potentially lithium-enriched basin brines might sink in the opposite direction, down-dip in a northwesterly to westerly direction, in a manner similar to that observed at Clayton Valley (Zampirro, 2004).



Figure 9-6. Seismic reflection profile, line 1, looking northeast. Red lines are interpreted faults, and the yellow line is the interpreted contact between basin-fill deposits above and rocks below. Gray line is the basin fill-rock contact from the basin-removed topographic elevation model of Wright (2015). Proposed drill-hole 1 is projected to section. QTs = Quaternary and Tertiary sediments, MzTu = undivided Mesozoic and Tertiary rocks. Vertical to horizontal scale is 1:1. Location of seismic line shown on Figure 7-2.



Figure 9-7. Seismic reflection profile, line 2, looking northeast. Red lines are interpreted faults, and the yellow line is the interpreted contact between basin-fill deposits above and rocks below. Gray line is the basin fill-rock contact from the basin-removed topographic elevation model of Wright (2015). Proposed drill-hole 2 is projected to section. QTs = Quaternary and Tertiary sediments, MzTu = undivided Mesozoic and Tertiary rocks. Vertical to horizontal scale is 1:1. Location of seismic line shown on Figure 7-2.



Figure 9-8. Seismic reflection profile, line 3, looking northeast. Red lines are interpreted faults, and the yellow line is the interpreted contact between basin-fill deposits above and rocks below. Gray line is the basin fill-rock contact from the basin-removed topographic elevation model of Wright (2015). QTs = Quaternary and Tertiary sediments, MzTu = undivided Mesozoic and Tertiary rocks. Vertical to horizontal scale is 1:1. Location of seismic line shown on Figure 7-2.

10 Drilling

10.1 Work Completed

A direct-push drill was brought to Teels Marsh in September, 2015 to sample groundwater and sediment in the playa at depths of up to 200 feet (60 metres). The contractor was Pediment Gold LLC (PGL) of Sparks, NV and the program was supervised in the field by Ken Tullar, CPG, manager of PGL. The equipment included a Geoprobe 6600-series direct push machine mounted on a Ford F550 4x4 (Figure 10-1) with a gross vehicle weight of 20,000 lbs (9,070 kg). A 1.5-inch- (3.81 cm) diameter hollow drill string was penetrated into the ground using direct-push of the gross vehicle weight against the drill-string plus a percussion hammer. Plastic tubing was used to extract fluids from a void space at the bottom of the hole created by pulling up on the drill string to release a conical drill point. A previous Geoprobe sampling program in 2010 at Teels Marsh, described in detail by Zehner et al. (2012), used the same equipment applied to geothermal exploration just outside the subject property.



Figure 10-1. The Geoprobe in operation drilling a hole at Teels Marsh.

The initial objective was to drill a series of holes across the playa, beginning in the northwestern portion where lithium concentrations in auger brines and sediments were highest (Figures 7-5, 7-6). Unfortunately, rainstorms that preceded the arrival of the Geoprobe created a muddy, soft surface that prevented access to the western half of the playa. As a consequence, drilling was limited to firmer ground at the far eastern and peripheral portions of the playa (Figure 10-2). A total of 10 Geoprobe holes were completed at nine sites, ranging in depth from 60 to 200 feet (18 to 61 metres), with a total length of 1,435 feet (437 metres) (Table 10-1).

The targeted depth at each site was 200 feet (60 metres), which is the practical limit of the Geoprobe under normal ground conditions. In all holes, zones of resistance were encountered that likely correspond to the presence of variably lithified sediments or tephra and/or higher percentages of clastic materials (silt and sand). In six of the 10 holes, this resistance prevented the probe from reaching the maximum planned depth (Table 10-1).

After each hole reached termination depth, the inner tube was filled with clean water and the rods were slowly withdrawn from the hole until pressure changes in the water column indicated that an aquifer had been breached. At that point, a water sample was developed using plastic tubing and the depth was recorded. Normally only one water sample was retrieved from each hole because entry of waters from multiple aquifers can cause contamination. In one case, however, (hole 2, Table 10-1), a second aquifer

at shallower depth generated artesian flow, in which case it was possible to take a second sample of fluid after sufficient flow had occurred and after conductivity measurements verified a chemistry different from that of the deeper aquifer. At another site (holes 6a and 6b, Table 10-1), two holes were drilled; the first hole pushed to 100 feet (30 metres), with a water sample retrieved from 95 feet (29 metres), and the second hole pushed to 200 feet (61 metres) for retrieval of a water sample at 180 feet (55 metres). Thusly, a total of 11 groundwater samples plus one duplicate groundwater sample (hole 7) were obtained from 10 holes drilled at nine sites (Table 10-1).



Figure 10-2. Total dissolved solids in groundwater sampled with the Geoprobe. The location of proposed deep exploration holes and drill roads are also shown. For explanation of background lithium concentrations in sediment, see Figure 7-6.

Two types of sediment samples were taken. Sludge samples were taken of the sediment that settled out in buckets during the sampling of groundwater from the Geoprobe holes. In addition, for three holes, sediment cores were extracted from the uppermost 25 to 30 feet (7.6 to 9.1 metres) using a 60-inch-long (152-centimetre) Macro-Core[®] single-tube soil sampler. The core was selectively subsampled for mineralogical determinations (XRD analyses) and chemical analyses.

	Easting	Northing					
	(UTM, zone	11, nad27)		Total Depth	Water Sample		Conductivity
Hole No.	metres	metres	DATE	(feet)	Depth (feet)	pН	(microsiemens)
DTM002	380,853	4,230,017	03-Sep-15	200	120, 178	10.1, 8.64	2865, 9020
DTM003	381,586	4,230,697	04-Sep-15	200	195	9.02	2,422
DTM004	381,900	4,231,466	04-Sep-15	183	178	8.21	3,253
DTM005	383,491	4,229,285	05-Sep-15	60	55	10.13	7,560
DTM006a	383,154	4,231,562	05-Sep-15	100	95	9.34	272,700
DTM006b	383,154	4,231,562	05-Sep-15	200	180	8.56	52,600
DTM007	382,845	4,230,199	06-Sep-15	152	95	9.25	440,000
DTM008	383,400	4,230,648	06-Sep-15	115	90	9.51	436,400
DTM009	382,980	4,230,843	07-Sep-15	110	65	9.23	420,600
DTM010	382,525	4,231,554	07-Sep-15	115	85	9.98	68,800

Table 10-1. Locations, dates	, and field data for	Geoprobe holes drilled in 2015.
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10.2 Groundwater and Sediment Results

The sampled Geoprobe groundwater had salinities (TDS) ranging from 1,520 mg/L to 258,000 mg/L. Holes drilled along the edges of the playa yielded samples with lower salinities, ranging from 1,520 to 5,460 mg/L, while holes drilled closer to the central axis of the playa (Figure 10-2) had salinities approaching halite saturation (233,000 to 258,000 mg/L). In terms of major element chemistry, the waters are Na-Cl-carbonate brines (Table 10-2), with most of the samples, exclusive of samples from the periphery of the playa, falling into the moderate sodium-carbonate lake classification scheme described by Zheng and Liu (2009). Lithium concentrations in the sampled waters were in most cases below a detection limit of about 1 mg/L, with one sample yielding 1.8 mg/L. Boron concentrations ranged from <5 to 468 mg/L and potassium ranged from 43 to 5,000 mg/L (Table 10-2).

Hole	Sample Depth	Cl	HCO3*	CO3*	SO4	В	Li	Ca	Mg	к	Na
Number	(feet)	mg/L	mg/l	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
DTM002	120	524	28.3	312.2	172	7	<1.0	<5.0	<5	44	700
DTM002	178	2 5 7 0	119.6	51.4	74	9	<1.0	15	<5	140	1,700
DTM003	195	770	37.8	38.9	7	<5	<1.0	13	<5	43	500
DTM004	178	1060	111.7	17.8	3	<5	<1.0	23	<5	56	700
DTM005	55	1870	40.4	536.5	297	30	<10.0		<5		1,800
DTM006a	95	68100	7,308.7	15,725.0	7,870	170	<1.0	<5.0	<5	3,100	59,600
DTM006b	180	15000	1,878.2	670.6	1,110	26	1.8	7	12	740	11,000
DTM007	95	85700	14,222.8	24,873.5	13,600	453	<0.9	<5.0	<5	4,700	86,600
DTM007	95 (repeat)	87200	13,939.7	24,378.4	13 <i>,</i> 800	468	<0.9	<5.0	<5	4,900	87,800
DTM008	90	85000	7,363.9	23,434.7	10,800	329	<0.9	<5.0	<5	4,300	83,000
DTM009	65	88600	7,875.5	13,153.1	13,560	314	<1.8	<10.0	<10	5,000	89,600
DTM010	85	15100	0.0	0.0	1,180	136	<0.9	<5.0	<5	1,100	12,300

Table 10-2. Geochemical analyses of groundwater samples taken from Geoprobe holes.

*Bicarbonate and carbonate concentrations have been revised to account for the effect of borate concentrations on lab-measured alkalinities.

X-ray diffraction (XRD) analyses completed by the Energy & Geoscience Institute at the University of Utah (Jones et al., 2015) detected a variety of minerals consistent with the presence of evaporites, clays, volcanic tephra (ash), and fine-grained detrital clastic materials (silt and sand). The evaporite minerals

halite and gaylussite were detected in concentrations ranging up to 26 and 45%, respectively, and lesser concentrations of northupite were identified (Table 10-3). Relatively abundant plagioclase (up to 27%), k-feldspar (up to 20%), and quartz (up to 12%) are indicative of the presence of fine clastic layers (silt). High concentrations of phillipsite (up to 32%) and searlesite (up to 34%), along with minor chabazite and analcime, are characteristic of diagenetically altered volcanic tephra at Teels Marsh (Hay, 1964; Smith and Drever, 1976). The interception of hard lithified zones by the Geoprobe at multiple depths may be another indication of this tephra.

Lithium in the core and groundwater sludge samples ranged from <5 to 310 ppm and boron ranged from <5 to 8,600 ppm (Tables 4, 5). Lithium concentrations in these samples correlate best with Mg concentrations ($r^2 = 0.41$) but also correlate weakly with searlesite abundance ($r^2 = 0.29$) and Na ($r^2 = 0.27$) concentrations. A weighted combination of Mg and Na correlates best with Li, with an r^2 factor of 0.60. Lithium is known to substitute for Mg in many minerals, including hectorite, an Mg-rich smectite. However, in the core samples, lithium correlates negatively with the abundance of smectite. In two samples with the highest lithium concentrations, northupite was detected. Northupite is a sodiummagnesium carbonate-chloride salt mineral (water soluble). Because of limitations in the sensitivity of the XRD equipment and the limited abundance of northupite, a quantitative correlation between northupite and lithium could not be calculated. Thus, the mineralogical residence of lithium in these samples remains unclear. The dominant host of boron in the sediments appears to be searlesite, based on its detection and relative abundance in nine of the 15 XRD samples.

Sample Number	Core	Core interval (feet)	Core Recovery (%)	Sample depth (feet, inches)	Illite & Mica (%)	Plagioclase (%)	Gaylussite (%)	K-feldspar (%)	Halite (%)	Quartz (%)	Phillipsite (%)	Kaolinite (%)	Searlesite (%)	Calcite (%)	Chlorite (%)	Smectite (%)	Amphibole (%)	Chabazite (%)	Analcime (%)	Clinoptilolite (%)	Northupite (%)	Dolomite (%)
1	DTM-006	0-5	81	2' 7"	18	18	5	8	5	8	10	3	6	1	6	0	3	4	6	0	0	0
2	DTM-006	5-10	51	8' 7"	26	15	2	9	4	6	8	7	6	3	3	1	2	2	8	0	0	0
3	DTM-006	10-15	80	12'11"	21	9	12	15	5	4	16	0	12	2	4	0	0	0	0	0	1	1
4	DTM-006	20-30	46	23' 2"	20	27	5	12	14	12	0	1	0	7	1	1	3	0	0	0	0	0
5	DTM-007	0-5	75	3' 3"	31	15	8	7	4	7	0	12	0	0	5	1	0	10	2	0	0	0
6	DTM-007	5-10	57	8'	25	15	10	8	6	7	9	7	6	0	4	1	0	0	2	2	0	0
7	DTM-007	10-15	50	13'1"	13	8	10	8	8	4	14	0	34	0	1	0	2	0	0	0	1	0
8	DTM-007	10-15	50	14 ' 6"	7	9	21	3	7	4	32	0	17	0	0	0	0	0	0	0	1	0
9	DTM-007	15-20	36	18'8"	19	20	14	4	26	6	0	8	0	0	1	1	2	0	0	0	0	0
10	DTM-007	20-25	65	23' 4"	10	11	45	9	14	5	0	6	0	0	1	1	0	0	0	0	0	0
11	DTM-008	0-5	41	3' 5"	26	20	4	12	4	9	5	9	5	4	1	0	2	0	0	0	0	0
12	DTM-008	5-10	69	8'3"	25	20	4	7	2	7	0	10	3	2	4	8	4	4	0	1	1	0
13	DTM-008	10-15	61	13' 2"	25	18	4	20	1	7	6	2	7	3	1	0	0	0	0	8	1	0
14	DTM-008	15-20	67	17' 11"	20	13	0	8	10	6	0	7	0	24	3	10	0	0	0	0	0	0
15	DTM-008	20-25	94	22 ' 5"	23	21	0	7	5	11	0	8	0	13	3	7	3	0	0	0	0	0

Table 10-3. Core intervals, sample locations, and XRD mineralogy of Geoprobe holes.XRD analysis from Jones et al. (2015).Table adapted from Jones et al. (2015).

Sample Number	Care	Core interval (feet)	Core Recovery (%)	Sample depth (feet, inches)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Lithium (mg/kg)	Magnesium (mg/kg)	Manganese (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Potassium (mg/kg)	Silver (mg/kg)	Sodium (mg/kg)	Zinc (mg/kg)
1	DTM-006	0-5	81	2' 7"	22000	<12	94	0.85	2800	<0.050	7400	21	30	13000	15	31	6800	520	<0.037	15	10000	<0.25	41000	50
2	DTM-006	5-10	51	8' 7"	23000	<12	150	0.83	1900	<0.050	7900	18	32	18000	17	24	6900	570	<0.040	17	9800	<0.25	36000	54
3	DTM-006	10-15	80	12' 11"	18000	15	88	0.95	3500	<0.050	15000	13	19	10000	10	240	9400	390	0.05	13	14000	<0.25	52000	36
4	DTM-006	20-30	46	23' 2"	8000	7.2	77	0.37	730	<0.049	16000	7.4	9.2	7300	4.5	160	6900	220	<0.038	6.8	5100	<0.25	33000	18
5	DTM-007	0-5	75	3' 3"	25000	<12	150	1	1300	<0.24	6300	15	40	18000	19	40	6700	660	0.05	17	10000	<0.24	45000	55
6	DTM-007	5-10	57	8'	20000	12	110	0.82	1600	<0.24	10000	13	34	13000	13	35	5500	510	<0.037	13	10000	<0.24	59000	48
7	DTM-007	10-15	50	13' 1"	10000	15	54	0.6	8600	<0.24	18000	7.2	11	4800	7.8	310	8900	200	<0.039	5.9	10000	1.2	83000	17
8	DTM-007	10-15	50	14' 6"	17000	16	81	0.95	2900	<0.24	17000	4.4	10	5100	10	120	4800	200	<0.037	5	13000	<0.24	64000	22
9	DTM-007	15-20	36	18' 8"	7700	<12	50	0.38	870	<0.049	1900	7.1	9	7000	5.3	150	7100	230	<0.035	7	6200	<0.25	59000	19
10	DTM-007	20-25	65	23' 4"	7100	<12	47	0.35	880	<0.049	14000	6.9	9.8	6500	4.7	170	6800	210	<0.035	6.4	6400	<0.24	73000	18
11	DTM-008	0-5	41	3' 5"	16000	<12	110	0.7	1100	<0.049	8100	16	26	13000	21	40	6300	540	<0.034	13	8600	<0.24	26000	45
12	DTM-008	5-10	69	8' 3"	23000	<12	170	0.82	320	<0.046	8300	13	35	20000	17	24	7000	680	<0.033	20	8000	<0.23	17000	50
13	DTM-008	10-15	61	13' 2"	17000	<12	130	1	2300	<0.25	9600	13	24	12000	12	98	6200	430	<0.036	15	13000	<0.25	19000	40
14	DTM-008	15-20	67	17' 11"	5700	28	68	0.28	460	<0.048	18000	6.3	9.6	5200	6	90	7400	280	<0.039	7.5	3700	<0.24	25000	16
15	DTM-008	20-25	94	22' 5"	8200	<4.9	55	0.38	620	<0.049	27000	8	11	7400	5.5	180	7200	220	<0.033	6.8	4600	0.33	20000	19

Table 10-4. Core intervals, sample locations, and geochemistry from Geoprobe holes. Elements were analyzed by ICP-OES, with the exception of mercury (cold vapor atomicatomic absorption). Samples were digested using EPA method 3050A.

Table 10-5. Lithium and boron analyses of Geoprobe sludge samples. Elements were analyzed by ICP-OES, with the exception of mercury (cold vapor atomic-atomic absorption). Samples were digested using EPA method 3050A.

	Sample Depth	Boron	Lithium
Hole Number	(feet)	(mg/kg)	(mg/kg)
DTM002	180	31	14
DTM003	195	14	18
DTM005	55	120	10
DTM006a	95	1,400	180
DTM006b	180	130	120
DTM007	95	1,400	56
DTM008	90	1,300	130
DTM009	65	590	180
DTM010	85	330	150

10.3 Discussion

Geoprobe drilling intercepted relatively carbonate-rich brine with low lithium concentrations in the shallow portions of the extreme northeastern portion of the playa. The major solute composition of these waters, sampled from depths ranging from 55 to 200 feet (16.8 to 61.0 metres), is in broad agreement

with the composition of shallow auger brine samples from the same area. Higher concentrations of lithium, up to 79 mg/L, have been measured from auger brine samples in the extreme northwestern corner of the playa. This lithium-enriched groundwater has major-solute chemistry different from that of the remainder of the playa, in that it is relatively carbonate-poor and sulfate-rich (being a Na-Cl-SO₄ brine instead of a Na-Cl-carbonate brine) (Figure 9-1). As discussed in the previous section, this chemical contrast may be caused by the influx of geothermal Na-Cl-SO₄-rich groundwater into the northwestern portion of the basin and influx of sodium-carbonate-rich, and commonly thermal, groundwater into other portions of the playa.

As already noted, due to difficult ground conditions, the Geoprobe was not able to test the western half of the playa where lithium concentrations are highest in near-surface brines and sediments (Figures 7-5, 7-6). A future exploration objective, therefore, is to test the deeper sub-surface in the western area for potential lithium-enriched brines. Such lithium-enriched brines might also occur at greater depths beneath the eastern portion of the playa, due to the tendency of high-TDS brines to sink because of their relatively high density compared to more dilute waters.

11 Sample Methods, Preparation, Analysis, and Security

This section describes the sampling methods, preparation methods, analytical methods, quality assurance and quality control assessments, and security employed by Dajin and its agents and contractors during Dajin's exploration work at Teels Marsh.

11.1 Field Sampling Procedures

11.1.1 <u>Western Geoscience Auger Sampling</u>: The first round of auger sampling, completed in late 2014 and early 2015, consisted of 76 holes distributed over most of the playa surface. This survey was completed by Western Geoscience, Inc. and supervised by Tom Evans, a California Registered Professional Geologist. Auger holes 9 feet (2.7 metres) deep were drilled with a combination of hand and motorized equipment (Evans, 2015). An initial 1-foot (0.3-metre) excavation was made with shovels. This was followed by an 8-in- (20.3 cm-) diameter hand-held, motorized auger used to reach an additional 3 feet (0.9 metres), and this was followed in turn by a 3.5-in- (8.9 cm) diameter hand-powered auger which penetrated the remaining distance to 9 feet (2.7 metres) (Evans, 2015).

Two sediment samples were taken from each auger hole, one representative of sediment above the water table ("A" sample) and the other of sediment below the water table ("B" sample). The sediments were placed in Hubco Sentry II polypropylene bags that allowed excess fluid to seep out while retaining fines. After hole completion, a 100-ml groundwater sample was taken using a vile attached to a long, thin plastic pole. The fluid was filtered at 25 microns, acidified in the field to a pH of 3.0 using reagent-grade nitric acid and filter papers, and placed in a clean polyethylene bottle (Evans, 2015).

11.1.2 <u>Pediment Gold LLC Auger Sampling</u>: A second auger sampling program, consisting of 20 samples, was conducted in April, 2016 to provide more detailed information in the northwest corner of the playa. The second survey was completed by Pediment Gold LLC under the supervision of Ken Tullar, CPG. A combination of shallow shovel holes, a hand-auger, and hand-driven, 2 ½ in (6.35 cm) OD direct-push tooling was used to penetrate to an average depth of 12.5 feet (3.8 metres). A sample of sediment was extracted from the bottom of the holes for chemical analysis. After waiting 12-36 hours for the water in the holes to reach static water level and for coarser particulates to settle out, a 1 ½ inch (3.8 cm),

perforated ABS pipe was lowered into the holes. Groundwater was evacuated via plastic tubing inserted into the center of the ABS pipe using a peristaltic pump.

Time was given for sediment to settle out of the water at the surface. All containers, tubing, and other materials exposed to sample water were rinsed three times with sample water prior to re-sampling. Conductivity, pH, and temperature were measured (temperature was measured while fluid was extracted from the hole).

Three types of water samples were taken at all sites; 1) a 60-250 ml volume sample for cation analysis, which was filtered at 5 μ m, then placed in a lab-supplied bottle with a lab-supplied aliquot of nitric acid, 2) a 200-250 ml volume sample for anion analysis, filtered at 5 μ m and placed in a lab-supplied bottle and kept cool without acidification, and 3) a reference 1-liter sample, not filtered or acidified. At six locations, an additional three groundwater samples were taken from the auger holes. They were taken in order to evaluate possible relationships between lithium concentrations and degree of filtering and type of acidification. These samples comprised 1) an unfiltered sample acidified with nitric acid, 2) an unfiltered sample acidified with hydrochloric acid, and 3) a sample filtered to 0.45 μ m and acidified with nitric acid. At the laboratory (WetLabs), a split of the 0.45 μ m sample was further filtered to 0.20 μ m.

11.1.3 <u>Geoprobe Sampling</u>: The process of bringing groundwater and sediment samples to the surface during Geoprobe drilling was described in section 10.1 above. Water samples were collected at the surface in a 5-gallon (19 litre) bucket and the temperature was immediately measured. Sediment was allowed to settle out of the sample until visual clarity was achieved, and field measurements of conductivity, pH, NO₂, NO₃, and SO₄ were taken. The water was then filtered in two stages, first to 5 μ m and then to 0.45 μ m. All tubing and containers that came into contact with groundwater were rinsed with sample solution at least three times before each use. A set of three water samples was taken at each sampled depth. These included 1) a 60 ml filtered sample acidified with nitric acid (for cation analysis), 2) a 60 ml filtered but not acidified sample (for anion analysis), and 3) a 125 ml unfiltered and not acidified sample for reference purposes. The sediment that settled out in the 5-gallon (19 litre) bucket during sample preparation was collected and bagged for analysis. All collected water and sediment samples were immediately placed and stored in clean, dry coolers.

11.2 Security

All groundwater and sediment samples were kept in the secured possession of managerial staff between their collection in the field and delivery to the laboratories. During the first round of auger drilling, "all samples were transported to the contractor supervisor Tom Evan's home and stored in a secure location out of the weather until they could be personally transported to Reno to the ALS Minerals facility" (Evans, 2015). Tom Evans is a California-registered professional geologist. During the second round of auger drilling, samples were kept in secured possession of Ken Tullar (CPG) of Pediment Gold LLC, transported to Reno, and transferred to Mark Coolbaugh, who kept them in locked possession until transfer to laboratories in Reno, NV. During the Geoprobe drilling program, groundwater and sediment samples were collected in the field by Ken Tullar and were transported by him from the field to the ALS Global Laboratory in Reno, NV. To date, all significant lithium groundwater results have been verified by two separate auger sampling campaigns conducted by two different groups, and the author of this 43-101 report, who was present during the second auger sampling campaign, is confident that sample integrity was not compromised.

11.3 Analytical Methods

The majority of the analyses were completed by four laboratories: ALS Minerals at 4977 Energy Way in Reno, Nevada, 89502; ALS Minerals at 2103 Dollarton Highway in North Vancouver, BC, V7H 0A7; ALS Environmental at 8081 Lougheed Highway, Suite 100, Burnaby, BC V5A 1W9; and Western Environmental Testing Laboratory (WetLabs) at 475 East Greg Street, Sparks, NV, 89431. A few repeat water analyses were completed by Thermochem Inc. at 3414 Regional Parkway #A in Santa Rosa, CA, 95403. X-ray diffraction (XRD) analyses were completed by the Energy & Geoscience Institute at the University of Utah at 423 Wakara Way, Suite 300, Salt Lake City, UT, 84108. All of these labs have excellent reputations and are widely recognized in their fields for quality analyses of groundwater, rocks, soils, and geothermal fluids, and they are independent of the issuer. ALS runs a Quality Management System that follows ISO standards for survey/inspection (ISO 9001:2008) and laboratory analysis (ISO 17025:2005). WetLabs is certified by the Nevada Department of Environmental Protection (NDEP) for analyses that meet the requirements of the federal Clean Water and Safe Drinking Water Acts.

All analyses of lithium, boron, potassium, and other cations in groundwater at Teels Marsh for Dajin, regardless of the laboratory, utilized ICP-AES (induced coupled plasma-atomic emission spectroscopy). ICP-AES is approved for analysis of Li, B, and K, and certain other metals by the EPA (e.g., EPA method 200.7), and it was the preferred analytical method of all these labs for working with brine solutions.

Samples analyzed by ICP-AES were acidified with nitric acid (Thermochem), aqua regia (WetLabs), conditionally acidified with aqua regia if visible solids were present (Thermochem), or not acidified at all (ALS). Filtering was not employed in the labs, except at Thermochem if visible solids were still present in solution after acidification, or unless specifically requested by the client (Dajin).

Analysis of sediment composition and groundwater anions was accomplished using routine analytical procedures in use at the laboratories. In the case of lithium in auger sediments, analytical techniques included four-acid digestion ICP-MS (induced coupled plasma-mass spectrometry), four-acid digestion ICP-AES, and Na₂O₂ fusion with ICP-AES finish. Each of these digestions can be considered near-total to total. For the Geoprobe sediment samples, lithium and boron were analyzed using nitric acid-hydrogen peroxide-hydrochloric acid digestion, followed by ICP-AES.

11.4 QA/QC

All of the laboratories utilized in this study maintain internal quality control systems. To supplement that internal control, Dajin submitted a number of external standards, blanks, and duplicate samples. As a further check on quality control and quality assurance (QA/QC), a number of samples were re-analyzed utilizing different methods or different labs.

11.4.1 <u>Auger Groundwater</u>: In the first auger sampling campaign in 2014-2015, 72 groundwater samples were collected (groundwater was not intercepted in 4 auger holes). All of these samples, with the exception of two samples taken from the northwest corner of the playa, yielded lithium concentrations at or below the detection limit of 10 mg/L (analyzed by ICP-AES, ALS Minerals). No standards or blanks were submitted with the samples, but splits of five samples were submitted to a second lab (WetLabs), where lithium concentrations were found to be below a detection limit of 5 mg/L (analyzed by ICP-AES). Two of the original brine samples yielded elevated lithium concentrations of 20 mg/L and 70 mg/L. The location of the higher grade sample was re-drilled with a new auger hole

positioned approximately 1-meter from the first hole, and the brine was submitted to ALS as part of a different batch of samples. The repeat assay of 50 mg/L Li was considered to be in good agreement with the original sample concentration of 70 mg/L, especially since assays in this concentration range from ALS are reported to only one significant figure.

The two aforementioned anomalous lithium groundwater samples were taken from the northwest portion of the playa, and they were the only 2 samples from an area of approximately 50 hectares (120 acres). A second augering program of 20 holes was designed to provide greater sampling detail in this area. The groundwater from these new holes was sent to WetLabs in Reno, NV, accompanied by a lithium blank sample and two standard brine samples of known lithium concentrations that were prepared at the University of British Columbia. Initial analyses from WetLabs did not accurately replicate the Li concentrations of the standard samples, so the entire set of 20 groundwater samples was sent to two additional laboratories, Thermochem in Santa Rosa, CA and ALS Minerals in Vancouver. The results from both Thermochem and ALS Minerals matched the known standard concentrations well (matching with <10% difference). WetLabs subsequently reviewed their analytical procedures, and after identifying calibration issues and making internal adjustments, they were able to reanalyze the samples to yield results in close agreement with the standards and other laboratories (Figure 11-1, Table 11-1). The bestfit curves for WetLabs and ALS Minerals are within 3-4% of the Thermochem values at a concentration of 50 to 60 mg/L (Figure 11-1). The Thermochem analyses were adopted as the representative lithium assays for this data set, because they have the highest reported precision and because their concentrations are slightly conservative relative to WetLabs and ALS results (Figure 11-1).

As a further check on quality control, three of the auger holes from the second survey were placed adjacent to holes drilled during the first auger survey. The results from the 2nd survey, which ranged from 0.2 to 59.5 mg/L Li, are considered to match the original samples well (Table 11-2).

11.4.2 <u>Auger Sediments</u>: Approximately one-half of the auger sediment samples were analyzed by both ICP-AES and ICP-MS at ALS Minerals by taking separate splits of the sample pulps. The results for lithium compare well, with the majority of analyses agreeing within 10%, especially at higher concentrations (Figure 11-2).

11.4.3 <u>Geoprobe Samples</u>: The Geoprobe QA/QC program included two blank fluid samples and one replicate sample of groundwater. As expected, the blanks yielded very low to undetected solute concentrations, and the replicate sample matched the original analysis of groundwater well (Table 11-3).

As an additional check on analytical accuracy, the entire set of Geoprobe waters which were initially analyzed at ALS was re-submitted to a second lab (WetLabs). The results, summarized for Li, B, and K in Table 11-3, show good agreement.

11.4.4 <u>Filter Size Assessment</u>: Water samples collected at Teels Marsh and reported herein have been subjected to varying degrees of filtering, ranging from none (raw) to 0.45 μ m. To evaluate the possible effect of filter size on lithium concentrations, an extra set of groundwater samples was taken from six auger holes in April, 2016. Three degrees of filtering were employed on these samples in the field; 1) no filtering, 2) filtering to 5 μ m, and 3) filtering to 0.45 μ m. After filtering, the samples were added to plastic bottles into which a small amount of lab-supplied nitric acid had been introduced. The quantity of nitric acid was considered sufficient to stabilize metal complexes in solution, but because of the high alkalinity of the samples, the amount of acid was not sufficient in most cases to reduce the pH below 8.0 (Figure 11-3). At the lab, a split of the 0.45- μ m-filtered samples was further filtered to 0.20 μ m.

No correlation was found between the degree of filtering and the lithium concentration of the samples (Figure 11-3). This review was instigated in part because an elevated lithium concentration (240 ppm) was found in fine-grained, black sediment that had settled out of a Geoprobe brine sample in the field (from hole #8). Dajin is currently working with the University of British Columbia to assess in more detail the relationship between lithium concentrations in fine suspended material and lithium dissolved in brine.

In summary of the QA/QC work, it is the authors' opinion that sample preparation methods, security procedures, and data provided by independent laboratories are adequate and sufficient to support the compilation of this report.



Figure 11-1. Correlation of lithium concentrations in groundwater from the 2nd auger sampling survey measured by four laboratories. See text for discussion.

12 Data Verification

The authors have been directly involved with almost all aspects of the Teels Marsh lithium exploration program. They have reviewed all key data and are familiar with the work of the contractors and field workers, and have no reason to doubt the effective completion of work and correctness of the results.

Table 11-1. Round-Robin lithium analyses from groundwater from the 2 nd auger	
sampling survey. Thermochem concentrations were adopted for use in this report. See	
text for discussion.	

Laboratory			WetLabs	Thermochem	ALS Minerals	WetLabs
Certification Date			Apr 28, 2016	May 31, 2016	May 26, 2016	July 18, 2016
			ICP-AES	ICP-AES	ICP-AES	ICP-AES
	Easting	Northing	Li (5 um)	Li (5 um)	Li (5 um)	Li (5 um)
Site Number	utm wgs84	utm wgs84	mg/L	mg/L*	mg/L	mg/L
T00 (UBC blank)	blank		<1.0	<0.1	<10	<0.67
T01	378,640	4,229,729	95.0	59.5	60	58
Т02	378,464	4,229,277	32.0	21.5	20	21
тоз	378,744	4,229,518	5.9	5.9	<10	6
т04	378,491	4,229,944	15.0	11.8	20	12
то5	378,562	4,229,449	13.0	6.5	10	7
т06	378,799	4,229,762	15.0	11.7	20	13
Т07	378,593	4,229,603	31.0	21.4	30	22
то8	378,608	4,229,816	65.0	44.2	50	46
т09	378,550	4,229,868	16.0	12.1	20	13
T10	378,757	4,229,646	63.0	36.6	40	38
T11 (UBC standard)	lithium standa	rd 92.2 mg/L	160.0	96.7*	100	100
T12	378,458	4,228,823	<10.0	0.2	<10	<0.67
T13	378,424	4,229,889	10.0	7.8	10	9
T14	378,703	4,229,351	<1.0	0.6	<10	1
T15	378,930	4,229,660	16.0	11.5	10	12
T16 (UBC standard)	lithium standa	rd 49.9 mg/L	75.0	51.8*	50	54
T17	378,920	4,229,481	3.1	1.5	<10	2
T21	378,804	4,228,954	<10.0	0.3	<10	1
T22	378,478	4,229,050	<1.0	0.2	<10	<0.67
T23	378,653	4,229,760	86.0	58.5	60	59
T24	378,637	4,229,674	35.0	23.3	20	24
T25	378,695	4,229,720	78.0	79.3	80	85

*Thermochem reported concentrations in mg/Kg (ppm). The mg/Kg were converted to mg/L by multiplying by fluid density, which was measured quantitatively by WetLabs. Insufficient sample was available for measuring densities of the standards, in which case, densities were estimated based on estimated salinities.

Table 11-2. Concentrations of lithium, boron, potassium, and sodium measured in brines from twinned shallow auger hole sites 1, 2, and 3. Numbers in parentheses in the solute column refer to the degree of filtering employed on the samples.

					Site 1	Site 2	Site 3
Lab	Sample #	method	solute	units	SE-42/T-01	SE-228/T-02	SE-230/T-12
ALS	SE #1	ME-ICP15	Li (25 um)	mg/L	70	20	<10
ALS	SE #2	ME-ICP15	Li (25 um)	mg/L	50		
Thermochem	T series	ICP-AES	Li (5 um)	mg/L	59.5	21.5	0.2
ALS	SE #1	ME-ICP15	B (25 um)	mg/L	316	101	174
ALS	SE #2	ME-ICP15	B (25 um)	mg/L	222		
WetLabs	T series	EPA 200.7	B (5 um)	mg/L	260	160	120
ALS	SE #1	ME-ICP15	K (25 um)	mg/L	2,100	1,000	1,200
ALS	SE #2	ME-ICP15	K (25 um)	mg/L	1,200		
WetLabs	T series	EPA 200.7	K (5 um)	mg/L	2,900	2,200	1,200
ALS	SE #1	ME-ICP15	Na (25 um)	mg/L	54,100	17,000	27,000
ALS	SE #2	ME-ICP15	Na (25 um)	mg/L	37,600		
WetLabs	T series	EPA 200.7	Na (5 um)	mg/L	51,000	34,000	24,000



Figure 11-2. Lithium concentrations measured in auger sediments by ICP-AES and ICP-MS at ALS Minerals. See text for discussion.

Table 11-3. Comparative analytical results from Geoprobe groundwater samples, Teels Marsh.

	ALS	WetLabs	WetLabs	ALS	WetLabs	WetLabs	ALS	WetLabs	WetLabs
	RE15138886	1511376	1512055	RE15138886	1511376	1512055	RE15138886	1511376	1512055
	ME-ICP15 FA*	EPA200.7 FA	EPA200.7 FR**	ME-ICP15 FA	EPA200.7 FA	EPA200.7 FR	ME-ICP15 FA	EPA200.7 FA	EPA200.7 FR
SAMPLE	Li	Li	Li	В	В	В	к	К	к
DESCRIPTION	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
DTM001 (blank)	<10		<2.0	10		<2.0	<500	N.A.	<10
DTM002	<10		<1.0	9		6.4	<500	N.A.	140
DTM002-120	<10		<1.0	7		8.5	<500	N.A.	44
DTM003-195	<10		<1.0	<5		3.4	<500	N.A.	43
DTM004-178	<10		<1.0	<5		4.6	<500	N.A.	56
DTM005-55	<10			30			<500	N.A.	
DTM006-95	<10		<1.0	170		180	3,100	N.A.	3,400
DTM006-180	<10	1.8	2	26	26	28	700	N.A.	740
DTM007-95	<10	<0.90	<1.0	453	440	490	4,700	N.A.	5,200
DTM007-95a***	<10	<0.90	<1.0	468	440	500	4,900	N.A.	5,200
DTM008-90	<10	<0.90	<1.0	329	310	340	4,300	N.A.	4,800
DTM009-65	<10	<0.90	<1.0	157	150	150	2,500	N.A.	2,700
DTM010-85	<10	<0.90	<1.0	136	140	140	900	N.A.	1,100
DTM011 (blank)	<10		<2.0	<5		<2.0	<500	N.A.	<10

FA* = filtered and acidified in field

FR** = filtered but not acidified in field

*** = field replicate

ME-ICP15 and EPA200.7 methods utilize ICP-AES



Figure 11-3. Relationship between degree of filtering and lithium concentrations in brines taken from shallow auger holes at Teels Marsh. Values for pH listed on right side of graph are before and after field addition of nitric acid.

Specifically, the authors have interacted with the following agents, employees, and companies in regards to their work at Teels Marsh: Ken Tullar (Pediment Gold LLC), Tom Evans (Western Geoscience, Inc.), Jerry Schwinkendorf (Columbia Geophysical, LLC), James Wright (J L Wright Geophysics), Jim Faulds (Nevada Bureau of Mines and Geology), Dick Benoit (advisor, Dajin Resources Corp.), and personnel at WetLabs, ALS Minerals, and Thermochem geochemical laboratories.

Multiple site visits to Teels Marsh have been made by the authors to verify the status of the property and the work performed there. During the Geoprobe drilling in September, 2015, the second author visited the site to verify, confirm, and help direct, groundwater and sediment sampling procedures. On January 17, 2016 the first author confirmed the location of multiple placer claims and the location of auger holes drilled by Western Geoscience, Inc. On April 9, 2016, the first author monitored the 2nd round of auger drilling and took samples of zeolite-altered tephra. On April 15-16, 2016 the first author documented thermal springs and travertines south and west of Teels Marsh and sampled and investigated evaporite and alteration minerals in the playa. On Aug. 2-3, 2016, the location of seismic lines and stations were verified by both authors.

In addition to the above-mentioned activities directly related to lithium exploration, the first author participated in geothermal exploration field work at Teels Marsh in 2005, 2006, and 2008. This work included 2-meter temperature surveys, geochemical sampling of springs and shallow groundwater, and field spectroradiometer analyses of surface evaporite minerals. These investigations led to the identification of shallow geothermal activity on the northwest and southwest margins of the playa and confirmed the presence of borate minerals on the eastern portion of the playa.

13 Mineral Processing and Metallurgical Testing

Metallurgical process testing has not yet been completed at Teels Marsh because exploration is still at an early stage, and brines with concentrations of lithium in excess of 100 mg/L have not yet been encountered. Nevertheless, solutes of potential economic impact are being monitored.

Elements that can have an adverse impact on economic lithium brine production include magnesium (Kesler et al., 2012). Mg has been measured at Teels Marsh at concentrations of generally less than 5 mg/L in auger and Geoprobe groundwater samples (Table 10-2), which is considered very low. Other solute species of interest include sulfate and carbonate. Sulfate concentrations in shallow groundwater at Teels Marsh range from near zero up to 13,800 mg/L in Geoprobe samples (Table 10-2), and have been measured in concentrations up to 17,000 mg/L in Dajin auger samples. These concentrations are broadly similar or somewhat higher compared to concentrations measured at Clayton Valley (Garrett, 2004). Total estimated carbonate species in shallow Teels Marsh brines range up to 39,000 mg/L (Table 10-2), but they are lower where elevated lithium contents have been measured (up to 7,500 mg/L total carbonate where Li >20 mg/L). These concentrations are higher than those encountered at Clayton Valley (Garrett, 2004), but high concentrations of carbonate species are not necessarily an impediment to the economic extraction of lithium (Kesler et al., 2012), as exemplified by the production of lithium at Zabuye, China from a carbonate-rich brine (Zheng and Liu, 2009). In any case, identification of a viable processing methodology must wait until suitable concentrations of lithium are encountered in groundwater at Teels Marsh, at which time process testing can begin.

Conventional processing of lithium brines utilizes solar evaporation as a means of upgrading lithium concentrations prior to processing in extractive plants (Garrett, 2004). Effective solar evaporation is favored by dry, desert climates. Teels Marsh, similar to Clayton Valley 80 km to the southeast, occurs in a dry portion of the Great Basin with low annual precipitation rates, low humidity, and high temperatures in the summer, all of which are conducive for the efficient operation of solar ponds.

Solar evaporation causes significant water consumption. In anticipation of the possible use of solar ponds, consumptive water rights have already been obtained by Dajin at Teels Marsh (see section 4). However, additional water rights would have to be obtained before operation of a solar evaporation pond system of the size as that currently operating in Clayton Valley.

14 Mineral Resource Estimate

No mineral resource or reserve has been estimated for lithium brines at Teels Marsh.

15 Adjacent Properties

Adjacent properties include patented mining claims owned by U.S. Borax Inc., unpatented placer claims controlled by Nevada Energy Metals, unpatented placer claims staked by ProspectOre LLC, and a few other private lands (Figure 4-2). The U.S. Borax lands are the only mining claims within the playa that are not controlled by, or under lease with, Dajin. They were originally staked for borate mining in the 1800s and have been held by U.S. Borax and its predecessors ever since. These claims occur along the eastern margin of the playa, but they do cover a portion of subsurface lithium brine targets. Dajin has a surface access and data sharing agreement with U.S. Borax.

Nevada Energy Metals controls 100 unpatented placer claims in the southwest corner of Teels Marsh. These claims cover the near-surface expression of a geothermal system, whose fluids could be contributing lithium to Teels Marsh, but the claims lie outside the playa itself, and largely outside of the deeper basin beneath Teels Marsh.

A large block of claims was staked in the summer of 2016 on the north, east, and south sides of the playa by ProspectOre, LLC. Gordon Addie, president of ProspectOre, has provided a location map (included as part of Figure 4-2). The locations of most of these claims have not been verified by Dajin personnel or its contractors, and confirmation is not available from the BLM, because the claims have not been filed (as of February 28, 2017) with the BLM, in spite of having been originally staked as early as June, 2016. These claims lie outside the playa and outside the deep basin inferred to lie beneath Teels Marsh (Figure 4-2).

Geothermal leases cover the western portion of the playa where Dajin holds placer claims, and also extend further to the west, north, and south (Figure 4-2). A discussion of those leases is provided in section 4.4.

16 Other Relevant Data and Information

The authors are not aware of any other relevant data and information for the Teels Marsh property.

17 Interpretations and Conclusions

Teels Marsh has many of the ingredients considered necessary for the formation of lithium brines. These ingredients include 1) the presence of a deep basin with high topographic divides that limit the potential escape of lake waters during wet climate periods, 2) the occurrence of potential lithium source rocks in the catchment basin (e.g., Tertiary felsic tuffs of the Candelaria Hills sequence), 3) widespread evidence of geothermal activity, including hot shallow groundwater on the northwest and southwest margins of the playa, thermal springs and travertine south of the playa, and borate deposits in the eastern portion of the playa, 4) a dry, desert climate with high evaporation rates similar those of Clayton Valley, and 5) proximity to Quaternary volcanic eruptive centers at Long Valley and Mono Craters, CA that could have deposited significant thicknesses of tephra in Teels Marsh. These tephra deposits could serve both as potential sources of lithium and as potential aquifers for lithium brines. For these reasons, the basin is considered an attractive lithium brine exploration target even though lithium concentrations above 79 mg/L have not been identified in shallow (<3 metres) groundwater.

Two arguments are driving a concept that concealed (e.g. not present at the surface) lithium brines could be present at Teels Marsh. The first argument is that at the nearby Clayton Valley lithium brine operation, economic concentrations of lithium in brines were reportedly not encountered at the surface, but were only discovered after drilling exploration wells (Davis et al., 1986). Possible explanations for why lithium may be present in lower concentrations at the surface than at depth include the tendency of sporadic surface run-off events (e.g., floods from thunderstorms) to dilute near-surface playa waters, and the tendency of saline brines to sink because of their greater density relative to fresher waters.

The second argument for the occurrence of concealed lithium brines comes from an exploration model in which economic concentrations of lithium in brines can develop relatively quickly due to natural solar evaporation processes, provided that groundwater and/or surface water entering the playa has suitably high lithium to total salt ratios, and a sufficiently large mass flux of lithium. Yu et al. (2013) provide a well-documented example of short-term (since the last glacial period) lithium enrichment in several basins currently being mined for their lithium brines in the Qaidam Basin, China. Additionally, many geothermal waters in the Great Basin, if evaporated to the point of halite saturation, would generate brines with lithium concentrations in the range of several hundreds of mg/L and higher, without the need of further concentration from precipitation of salt minerals. If lithium brines could have formed during an earlier period of time, there is also reason to suppose that lithium brines could have formed during an earlier period of time when conditions were more favourable, and then ceased to form when conditions became less favourable. Favourable lithium brine environments could change due to changes in the volume of erupted volcanic rocks with time (potential source rocks), changes in the climate cycle (wet vs. dry periods) and changes in the intensity of geothermal activity with time.

Elevated lithium concentrations of up to 79 mg/L in brines in the northwest corner of the playa appear to be related to the incursion of geothermal fluids into the basin. These brines provide a hint that perhaps additional lithium brines may be present at depth. Based on gravity and seismic surveys, the basin appears to be up to 2.5 km deep. This depth provides a fairly large volume within which lithium brines could collect. No deep lithium exploration drilling is known to have occurred at Teels Marsh beyond the depth of 200 feet (61 metres) provided by the Geoprobe drilling. For all of the reasons enumerated above, it is the conclusion of the authors that lithium brines could be present in the subsurface at Teels Marsh, and it is reasonable to search for those brines with exploratory drilling.

There is no guarantee, nonetheless, that lithium occurs in economic concentrations beneath Teels Marsh, or that if present, it could be extracted from aquifers and economically recovered. Uncertainties that affect the outcome of the proposed project include: 1) the concentration of lithium in subsurface brines, 2) the presence of aquifers with transmissivities sufficient to allow effective pumping and extraction of brines from wells, 3) the ability to design and employ a suitable chemical refinement process for producing a purified lithium product, 4) the availability of sufficient water and power to sustain a chemical extraction plant, and 5) the ability to obtain necessary permits and address any environmental concerns that may arise during exploration and development. The authors are of the opinion that, given the proximity of Teels Marsh to Clayton Valley, where lithium has been economically extracted from brines from brines since 1966, and given the generally similar geological conditions found at both sites, exploration for lithium brines at Teels Marsh is warranted, notwithstanding the risks enumerated above. With the information available as of the preparation of this report, no hurdles have been identified of an engineering, environmental, or regulatory nature that would prevent development.

18 Recommendations

Drilling is a logical next step in the exploration process at Teels Marsh. Shallow auger sampling has already outlined the distribution and composition of shallow groundwater and has encountered brines with anomalous lithium concentrations in the northwestern corner of the playa. Limited Geoprobe drilling has tested the accessible margins and eastern portions of the subsurface to depths of up to 200 feet (61 metres). A detailed gravity survey has broadly defined the shape and depth of the sedimentary basin beneath the playa, and a reflection seismic survey has identified the location of faults that bound a composite half-graben filled with sediments. The seismic and gravity surveys have been used to build a structural model of the basin, which in turn can be used to define specific drill targets to test for possible lithium-bearing aquifers at depth.

The more prospective parts of the basin recommended for initial drill testing are the central sub-basin, which is deepest, and the western sub-basin, which is closest to known geothermal activity and hosts the elevated lithium concentrations in shallow brines. These locations are highlighted by two proposed holes in Figure 10-2. The western site (drill-hole 1) was not tested by Geoprobe in 2015 because the playa surface was too wet and soft to support heavy vehicles. The eastern site (drill-hole 2) lies 300 metres west of a 200-foot- (61-metre) deep Geoprobe hole. The Geoprobe hole (Figure 10-2) encountered relatively dilute groundwater on the margin of the playa but did not reach depths sufficient to test aquifers that would be more centrally located with respect to the deeper portions of the basin.

The objective of these two holes would be to test for potential lithium-bearing aquifers at depths greater than those accessible with a Geoprobe. An important aquifer target is the Bishop Tuff, erupted from the Long Valley caldera 0.76 million years ago. This tephra comprises the single largest aquifer at Clayton Valley, where it is termed the "main ash aquifer" (Zampirro, 2004). Because Teels Marsh is up to 2.5 km deep, and subsidence of the basin is estimated to have begun approximately 3 million years ago (Oldow et al., 2008), depths to this potential aquifer could easily reach or exceed 620 metres (2,000 feet) in the deeper central sub-basin (Coolbaugh, 2016). For this reason, it is recommended that the eastern hole be drilled up to 4,000 feet (1,220 metres) deep (Figure 9-7). The shallower western sub-basin has an estimated maximum depth of about 4,000 feet (1,220 metres), or about half that of the central sub-basin. For that reason, a 2,000-foot-deep (610 metres) hole is considered sufficient to provide a test of that area (Figure 9-6).

18.1 Drilling Plan

18.1.1 <u>Engineering</u>: Because the proposed drill sites are located in areas of the playa that are characteristically wet and muddy, a suitable road base and drill-pad foundations will have to be built. This in turn will require acquisition of suitable road building materials (gravel) from a local quarry. An engineering firm (Welsh Hagen Associates) has been engaged by Dajin to optimize the design of roads and pads so that they are sufficiently stable on the one hand, but not excessively large on the other hand. Welsh Hagen has also been used by Dajin to identify and test potential gravel pit sites. Thus far 14 test pits have been excavated. Eleven of these are on BLM land and three on private land, testing 12 locations in total. Of these 12 locations, four are suitable for gravel extraction.

A drilling engineering specialist has been contracted to help design a drilling and sampling method appropriate for the wet, unconsolidated soils and muds likely to be encountered during drilling. Capuano Engineering Co. is a well-recognized drilling engineering company with considerable experience

engineering deep, wide diameter wells in playa environments. Additionally, Dajin has engaged Dick Benoit, Sustainable Solutions, who has over 40 years' drilling experience, to supervise the overall drilling program.

18.1.2 <u>Permitting</u>:

18.1.2.1 Surface permits:

An existing Notice provides access to BLM land. This Notice, which was originally used to carry out the seismic survey in May and June of 2016, was amended to undertake the deep, wide diameter drilling planned by Dajin in 2017. The BLM approved the Notice in a letter issued March 21, 2017 with reference number NVN-94695 3809 (NVC0100). Dajin has already received verbal confirmation that reclamation of the seismic survey disturbance was considered complete and that the existing bond will be applied to the updated Notice. The new bond assessment is \$288,341, towards which the existing \$25,000 bond payment will be applied. Enviroscientists, Inc. (now EM Strategies, Inc.) was engaged to carry out the base line studies needed for Notice approval. A Special Use Permit for use of county roads was received from Mineral County on February 21, 2017. A lease agreement signed February 5, 2017, has been secured between Dajin and a private land holder to extract 15,000 cubic yards (11,500 cubic metres) of gravel sufficient for building associated roads and pads under the current Notice. Dajin (through EM Strategies) has also initiated base-line studies for an eventual Plan-of-Operations (POO) to carry out additional drilling, if the initial four-well drilling program is successful. Dajin will procure an additional source of gravel before further road building (beyond the Notice) can be carried out.

18.1.2.2 Water permits:

In May, 2015, Dajin received NDWR permit #85204 for the consumptive use of up to 1,000 acrefeet per annum of groundwater at Teels Marsh. This right is conditional on placing the water to beneficial use by May 24th, 2019. These water rights facilitated the permitting process for the four exploration wells, and make it possible to drill an additional water well, if needed, to provide a fresh water supply during drilling. There have been no protests lodged regarding Dajin's plans for water usage and Dajin has successfully obtained the temporary permits to change the point of diversion for the four proposed exploration wells under this base Water Right Permit.

Importantly, the water rights also make it possible to conduct sustained flow tests from the wells, if warranted based on geochemical sampling. A 14-day flow test is recommended for testing potential aquifers. Such a flow test could discharge more than 4 million gallons (15 million litres or 12.37 acre-feet) of water. This volume of water will exceed the storage capacity of sumps, so a temporary discharge permit from the NDEP will be required.

As per recommendations, Dajin has been in discussion with NDEP and BLM representatives regarding temporary discharge from the proposed exploration wells. A temporary discharge permit is valid for only 180 days (6 months) and the NDEP has advised that it is best to apply for the permit after the wells are drilled and they are ready to test. Water quality testing will likely be required prior to issuance of the permit.

The State of Nevada Commission on Mineral Resources has submitted a new assembly bill (No. AB52-Committee on Government Affairs) before the Nevada State Legislature (2017 session). This bill is designed to assist companies in obtaining the necessary water permit waivers for exploration drilling and testing. Dajin requires no changes to the current regulations in order to

proceed with the drilling of its planned exploration wells because consumptive water rights have already been granted. Additionally these consumptive rights allow aquifer testing beyond the 5 acre-feet contemplated in AB52 and allowable under a waiver. To date it has encountered no issues with its proposed water use plans.

18.1.3 <u>Road construction</u>: Road construction is anticipated to comprise a significant portion of drilling costs, because the majority of the playa surface is muddy and water saturated, and will not support heavy equipment at most times of the year. In order to provide a proper foundation for drilling equipment where the roads pass over unconsolidated wet soils and mud, the roads will be constructed of compacted gravel and geo-synthetic textile. Initial design work of Welsh Hagen Associates indicates that road building costs and ground disturbance can be minimized by accessing the proposed drill sites by way of a trunk road with branches leading to each site (Figure 10-2). A suitable source of gravel that passes engineering specifications has been located on private ground in Marietta, and a contract with the land owner was signed February 5, 2017.

18.1.4 <u>Drilling</u>: The extraction of brine samples from the unconsolidated sediments and aquifers that may be encountered in the exploration wells could be challenging. To increase the chances of obtaining good samples at multiple depths, two holes are recommended to be drilled at each site. The first of each pair of wells is recommended to be drilled to a shallower depth of 500 feet (150 metres). This allows for testing of the upper 500 feet of the sedimentary sequence, and also makes it possible for the second of each pair of wells to be cased to 500 feet (150 metres) to promote hole stability while drilling to a total depth of up to 4,000 feet (1,220 metres). The wells will be drilled with mud to promote stability of the walls and casing sizes have been chosen to allow for downsizing if down-hole issues are encountered.

The drilling rig should be equipped with air-lifting capabilities that can be used to help extract water samples and clean out the well bore. It will be important to closely monitor fluid temperatures during drilling because of the expected proximity to geothermal waters. Drilling will be terminated early if temperatures of returned drilling mud exceed a certain threshold, for example, 125°F (52°C). Samples of drilling muds and other liquids used in the drilling operation must be tested for possible lithium contamination prior to use.

In addition to the lithium exploration wells, a water well is needed to provide a clean source of water for drilling activities. An abandoned well is being investigated that may be suitable, but a water well site has been included in the Notice should the existing well prove inadequate.

18.1.5 <u>Brine Sampling Program</u>: Appropriate sampling equipment should be assembled and tested prior to drilling to ensure high-quality brine samples can be taken in the field. Temperatures, thermal conductivities, and pH of formational waters should be measured in the field. A sampling protocol needs to include description of cleaning procedures, filtering and fluid stabilization (acidification and cooling) procedures, use of standard and blank samples, and a chain of custody.

Arrangements with a laboratory need to be made prior to drilling to make sure samples can be received and processed in a timely manner and that appropriate sample preparation and analytical procedures are used. It is suggested that lithium concentrations be measured by ICP-AES by a recognized laboratory experienced with the challenges of analyzing lithium and other solutes in high-salinity brines.

18.1.6 <u>Reclamation</u>: Following the drilling program, Dajin will need to make the decision as to whether to reclaim the roads and pads and plug and abandon the wells. The bond posted with the BLM is calculated as to the costs to carry out this work. Preferably, roads and sites will not be reclaimed if drilling

results lead to an expanded drilling program, in which case the initial sites and roads can become part of a larger Plan of Operations (PoO) permitting process.

18.2 Budget for Recommended Exploration

Estimated costs for the above activities are approximately \$4.0 million USD. These are based partly on preliminary quotes and partly based on standardized estimates of cost. Major breakdowns by each of the above six main categories are:

CATEGORY	ESTIMATED COST (millions of USD)
1. Engineering	\$ 0.20
2. Permitting	0.20
3. Road construction:	0.50
4. Drilling	2.50
5. Sampling	0.20
6. Reclamation and bonding	0.30
7. Reporting (e.g. updated NI 43-101)	0.10
Estimated Tota	l Cost: \$ 4.00

These figures are preliminary and subject to refinement. A more accurate estimate of the drilling budget will be possible once final bids and quotes have been received from contractors and suppliers.

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43-101 Technical Report M. Coolbaugh, C. Hickson Teels Marsh, Mineral County, NV Effective date: March 21, 2017

Dajin Resources (US) Corp. Vancouver, BC, Canada

20 Date and Signature Page

The undersigned authors prepared this NI 43-101 Technical Report describing the exploration status of Dajin Resources (US) Corp's Teels Marsh property. The format and content of this report are intended to conform to the rules and guidelines for disclosure of mineral projects described in National Instrument 43-101.

Signed:

Mark J. Coolbary Mark F. Coolbaugh, Ph.D., CPG, QP

-March 30, 2017

Date

Catherine Hickson, Ph.D., P.Geo, QP

Date

Appendix A: List of Dajin (US) Resources Corp. placer claims

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 3	2/2/2015	0040N	0330E	7	4/30/2015	1110573	4/29/2015	161172
20	LP 4	2/2/2015	0040N	0330E	7	4/30/2015	1110574	4/29/2015	161173
20	LP 5	2/2/2015	0040N	0330E	7	4/30/2015	1110575	4/29/2015	161174
20	LP 6	2/2/2015	0040N	0330E	8	4/30/2015	1110576	4/29/2015	161175
20	LP 7	2/2/2015	0040N	0330E	8	4/30/2015	1110577	4/29/2015	161176
20	LP 8	2/2/2015	0040N	0330E	8	4/30/2015	1110578	4/29/2015	161177
20	LP 9	2/2/2015	0040N	0330E	8	4/30/2015	1110579	4/29/2015	161178
20	LP 14	2/2/2015	0040N	0330E	7	4/30/2015	1110581	4/29/2015	161180
20	LP 15	2/2/2015	0040N	0330E	7	4/30/2015	1110582	4/29/2015	161181
20	LP 16	2/2/2015	0040N	0330E	7	4/30/2015	1110583	4/29/2015	161182
20	LP 17	2/2/2015	0040N	0330E	7	4/30/2015	1110584	4/29/2015	161183
20	LP 18	2/2/2015	0040N	0330E	8	4/30/2015	1110585	4/29/2015	161184
20	LP 19	2/2/2015	0040N	0330E	8	4/30/2015	1110586	4/29/2015	161185
20	LP 27	2/2/2015	0040N	0330E	7	4/30/2015	1110588	4/29/2015	161187
20	LP 28	2/2/2015	0040N	0330E	7	4/30/2015	1110589	4/29/2015	161188
20	LP 29	2/2/2015	0040N	0330E	7	4/30/2015	1110590	4/29/2015	161189
20	LP 30	2/2/2015	0040N	0330E	7	4/30/2015	1110591	4/29/2015	161190
20	LP 31	2/2/2015	0040N	0330E	7	4/30/2015	1110592	4/29/2015	161191
20	LP 32	2/2/2015	0040N	0330E	8	4/30/2015	1110593	4/29/2015	161192
20	LP 33	2/2/2015	0040N	0330E	8	4/30/2015	1110594	4/29/2015	161193
20	LP 34	2/2/2015	0040N	0330E	8	4/30/2015	1110595	4/29/2015	161194
20	LP 35	2/2/2015	0040N	0330E	8	4/30/2015	1110596	4/29/2015	161195
18	LP 45	2/3/2015	0040N	0330E	7	4/30/2015	1110597	4/29/2015	161196 (amend 163806)
18	LP 46	2/3/2015	0040N	0330E	7	4/30/2015	1110598	4/29/2015	161197 (amend 163807)
20	LP 47	2/3/2015	0040N	0330E	7	4/30/2015	1110599	4/29/2015	161198
20	LP 48	2/3/2015	0040N	0330E	7	4/30/2015	1110600	4/29/2015	161199
20	LP 49	2/3/2015	0040N	0330E	7	4/30/2015	1110601	4/29/2015	161200
20	LP 50	2/3/2015	0040N	0330E	7	4/30/2015	1110602	4/29/2015	161201
						BLM	BLM Serial	County	County
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Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 51	2/3/2015	0040N	0330E	7	4/30/2015	1110603	4/29/2015	161202
20	LP 52	2/3/2015	0040N	0330E	7	4/30/2015	1110604	4/29/2015	161203
20	LP 53	2/3/2015	0040N	0330E	8	4/30/2015	1110605	4/29/2015	161204
20	LP 54	2/3/2015	0040N	0330E	8	4/30/2015	1110606	4/29/2015	161205
20	LP 55	2/3/2015	0040N	0330E	8	4/30/2015	1110607	4/29/2015	161206
20	LP 56	2/3/2015	0040N	0330E	8	4/30/2015	1110608	4/29/2015	161207
20	LP 59	2/3/2015	0040N	0320E	14	4/30/2015	1110609	4/29/2015	161208
20	LP 60	2/3/2015	0040N	0320E	14	4/30/2015	1110610	4/29/2015	161209
20	LP 61	2/3/2015	0040N	0320E	14	4/30/2015	1110611	4/29/2015	161210
20	LP 62	2/3/2015	0040N	0320E	14	4/30/2015	1110612	4/29/2015	161211
20	LP 68	2/3/2015	0040N	0320E	13	4/30/2015	1110613	4/29/2015	161212
20	LP 69	2/3/2015	0040N	0320E	13	4/30/2015	1110614	4/29/2015	161213
20	LP 70	2/3/2015	0040N	0320E	13	4/30/2015	1110615	4/29/2015	161214
18	LP 71	2/3/2015	0040N	0330E	18	4/30/2015	1110616	4/29/2015	161215 (amend 163808)
18	LP 72	2/3/2015	0040N	0330E	18	4/30/2015	1110617	4/29/2015	161216 (amend 163809)
20	LP 73	2/3/2015	0040N	0330E	18	4/30/2015	1110618	4/29/2015	161217
20	LP 74	2/3/2015	0040N	0330E	18	4/30/2015	1110619	4/29/2015	161218
20	LP 75	2/3/2015	0040N	0330E	18	4/30/2015	1110620	4/29/2015	161219
20	LP 76	2/3/2015	0040N	0330E	18	4/30/2015	1110621	4/29/2015	161220
20	LP 77	2/3/2015	0040N	0330E	18	4/30/2015	1110622	4/29/2015	161221
20	LP 78	2/3/2015	0040N	0330E	18	4/30/2015	1110623	4/29/2015	161222
20	LP 79	2/3/2015	0040N	0330E	17	4/30/2015	1110624	4/29/2015	161223
20	LP 80	2/3/2015	0040N	0330E	17	4/30/2015	1110625	4/29/2015	161224
20	LP 81	2/3/2015	0040N	0330E	17	4/30/2015	1110626	4/29/2015	161225
20	LP 82	2/3/2015	0040N	0330E	17	4/30/2015	1110627	4/29/2015	161226
20	LP 92	2/3/2015	0040N	0320E	14	4/30/2015	1110629	4/29/2015	161228
20	LP 93	2/3/2015	0040N	0320E	14	4/30/2015	1110630	4/29/2015	161229
20	LP 94	2/3/2015	0040N	0320E	14	4/30/2015	1110631	4/29/2015	161230

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 95	2/3/2015	0040N	0320E	14	4/30/2015	1110632	4/29/2015	161231
20	LP 96	2/3/2015	0040N	0320E	13	4/30/2015	1110633	4/29/2015	161232
20	LP 97	2/3/2015	0040N	0320E	13	4/30/2015	1110634	4/29/2015	161233
20	LP 98	2/3/2015	0040N	0320E	13	4/30/2015	1110635	4/29/2015	161234
20	LP 99	2/3/2015	0040N	0320E	13	4/30/2015	1110636	4/29/2015	161235
20	LP 100	2/3/2015	0040N	0320E	13	4/30/2015	1110637	4/29/2015	161236
20	LP 101	2/3/2015	0040N	0320E	13	4/30/2015	1110638	4/29/2015	161237
20	LP 102	2/3/2015	0040N	0320E	13	4/30/2015	1110639	4/29/2015	161238
20	LP 103	2/3/2015	0040N	0320E	13	4/30/2015	1110640	4/29/2015	161239
18	LP 104	2/3/2015	0040N	0330E	18	4/30/2015	1110641	4/29/2015	161240 (amend 163811)
18	LP 105	2/3/2015	0040N	0330E	18	4/30/2015	1110642	4/29/2015	161241 (amend 163812)
20	LP 106	2/3/2015	0040N	0330E	18	4/30/2015	1110643	4/29/2015	161242
20	LP 107	2/3/2015	0040N	0330E	18	4/30/2015	1110644	4/29/2015	161243
20	LP 108	2/3/2015	0040N	0330E	18	4/30/2015	1110645	4/29/2015	161244
20	LP 109	2/3/2015	0040N	0330E	18	4/30/2015	1110646	4/29/2015	161245
20	LP 110	2/3/2015	0040N	0330E	18	4/30/2015	1110647	4/29/2015	161246
20	LP 111	2/3/2015	0040N	0330E	18	4/30/2015	1110648	4/29/2015	161247
20	LP 112	2/3/2015	0040N	0330E	17	4/30/2015	1110649	4/29/2015	161248
20	LP 113	2/3/2015	0040N	0330E	17	4/30/2015	1110650	4/29/2015	161249
20	LP 114	2/3/2015	0040N	0330E	17	4/30/2015	1110651	4/29/2015	161250
20	LP 115	2/3/2015	0040N	0330E	17	4/30/2015	1110652	4/29/2015	161251
20	LP 116	11/4/2015	0040N	0330E	17	1/29/2016	1118199	1/29/2016	162701
20	LP 117	11/4/2015	0040N	0330E	17	1/29/2016	1118200	1/29/2016	162702
20	LP 118	11/4/2015	0040N	0330E	17	1/29/2016	1118201	1/29/2016	162703
20	LP 119	11/4/2015	0040N	0330E	17	1/29/2016	1118202	1/29/2016	162704
20	LP 120	11/4/2015	0040N	0330E	16	1/29/2016	1118203	1/29/2016	162705
20	LP 121	11/4/2015	0040N	0330E	16	1/29/2016	1118204	1/29/2016	162706
20	LP 125	2/3/2015	0040N	0320E	14	4/30/2015	1110653	4/29/2015	161252

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 126	2/3/2015	0040N	0320E	14	4/30/2015	1110654	4/29/2015	161253
20	LP 127	2/3/2015	0040N	0320E	14	4/30/2015	1110655	4/29/2015	161254
20	LP 128	2/3/2015	0040N	0320E	14	4/30/2015	1110656	4/29/2015	161255
20	LP 129	2/3/2015	0040N	0320E	14	4/30/2015	1110657	4/29/2015	161256
20	LP 130	2/3/2015	0040N	0320E	13	4/30/2015	1110658	4/29/2015	161257
20	LP 131	2/3/2015	0040N	0320E	13	4/30/2015	1110659	4/29/2015	161258
20	LP 132	2/3/2015	0040N	0320E	13	4/30/2015	1110660	4/29/2015	161259
20	LP 133	2/3/2015	0040N	0320E	13	4/30/2015	1110661	4/29/2015	161260
20	LP 134	2/3/2015	0040N	0320E	13	4/30/2015	1110662	4/29/2015	161261
20	LP 135	2/3/2015	0040N	0320E	13	4/30/2015	1110663	4/29/2015	161262
20	LP 136	2/2/2015	0040N	0320E	13	4/30/2015	1110664	4/29/2015	161263
20	LP 137	2/2/2015	0040N	0320E	13	4/30/2015	1110665	4/29/2015	161264
18	LP 138	2/2/2015	0040N	0330E	18	4/30/2015	1110666	4/29/2015	161265 (amend 163813)
18	LP 139	2/2/2015	0040N	0330E	18	4/30/2015	1110667	4/29/2015	161266 (amend 163814)
20	LP 140	2/2/2015	0040N	0330E	18	4/30/2015	1110668	4/29/2015	161267
20	LP 141	2/2/2015	0040N	0330E	18	4/30/2015	1110669	4/29/2015	161268
20	LP 142	2/2/2015	0040N	0330E	18	4/30/2015	1110670	4/29/2015	161269
20	LP 143	2/2/2015	0040N	0330E	18	4/30/2015	1110671	4/29/2015	161270
20	LP 144	2/2/2015	0040N	0330E	18	4/30/2015	1110672	4/29/2015	161271
20	LP 145	2/2/2015	0040N	0330E	18	4/30/2015	1110673	4/29/2015	161272
20	LP 146	11/4/2015	0040N	0330E	17	1/29/2016	1118205	1/29/2016	162707
20	LP 147	11/4/2015	0040N	0330E	17	1/29/2016	1118206	1/29/2016	162708
20	LP 148	11/4/2015	0040N	0330E	17	1/29/2016	1118207	1/29/2016	162709
20	LP 149	11/4/2015	0040N	0330E	17	1/29/2016	1118208	1/29/2016	162710
20	LP 150	11/4/2015	0040N	0330E	17	1/29/2016	1118209	1/29/2016	162711
20	LP 151	11/4/2015	0040N	0330E	17	1/29/2016	1118210	1/29/2016	162712
20	LP 152	11/4/2015	0040N	0330E	17	1/29/2016	1118211	1/29/2016	162713
20	LP 157	2/3/2015	0040N	0320E	14	4/30/2015	1110674	4/29/2015	161273

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Approximate	Claim	Location				Recording	Number	Recording	Document
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20	LP 158	2/3/2015	0040N	0320E	14	4/30/2015	1110675	4/29/2015	161274
20	LP 159	2/3/2015	0040N	0320E	14	4/30/2015	1110676	4/29/2015	161275
20	LP 160	2/3/2015	0040N	0320E	14	4/30/2015	1110677	4/29/2015	161276
20	LP 161	2/3/2015	0040N	0320E	14	4/30/2015	1110678	4/29/2015	161277
20	LP 162	11/4/2015	0040N	0320E	13	1/29/2016	1118255	1/29/2016	162757
20	LP 163	11/4/2015	0040N	0320E	13	1/29/2016	1118256	1/29/2016	162758
20	LP 164	11/4/2015	0040N	0320E	13	1/29/2016	1118257	1/29/2016	162759
20	LP 165	11/4/2015	0040N	0320E	13	1/29/2016	1118258	1/29/2016	162760
20	LP 166	11/4/2015	0040N	0320E	13	1/29/2016	1118259	1/29/2016	162761
20	LP 167	11/4/2015	0040N	0320E	13	1/29/2016	1118260	1/29/2016	162762
20	LP 168	11/4/2015	0040N	0320E	13	1/29/2016	1118261	1/29/2016	162763
20	LP 169	11/4/2015	0040N	0320E	13	1/29/2016	1118262	1/29/2016	162764
18	LP 170	11/4/2015	0040N	0330E	18	1/29/2016	1118263	1/29/2016	162765 (amend 163815)
18	LP 171	11/4/2015	0040N	0330E	18	1/29/2016	1118264	1/29/2016	162766 (amend 163816)
20	LP 172	11/4/2015	0040N	0330E	18	1/29/2016	1118265	1/29/2016	162767
20	LP 173	11/4/2015	0040N	0330E	18	1/29/2016	1118266	1/29/2016	162768
20	LP 174	11/4/2015	0040N	0330E	18	1/29/2016	1118212	1/29/2016	162714
20	LP 175	11/4/2015	0040N	0330E	18	1/29/2016	1118213	1/29/2016	162715
20	LP 176	11/4/2015	0040N	0330E	18	1/29/2016	1118214	1/29/2016	162716
20	LP 177	11/4/2015	0040N	0330E	18	1/29/2016	1118215	1/29/2016	162717
20	LP 188	2/3/2015	0040N	0320E	23	4/30/2015	1110692	4/29/2015	161291
20	LP 189	2/3/2015	0040N	0320E	23	4/30/2015	1110693	4/29/2015	161292
20	LP 190	2/3/2015	0040N	0320E	23	4/30/2015	1110694	4/29/2015	161293
20	LP 191	2/3/2015	0040N	0320E	23	4/30/2015	1110695	4/29/2015	161294
20	LP 192	11/4/2015	0040N	0320E	24	1/29/2016	1118267	1/29/2016	162769
20	LP 193	11/4/2015	0040N	0320E	24	1/29/2016	1118268	1/29/2016	162770
20	LP 194	11/4/2015	0040N	0320E	24	1/29/2016	1118269	1/29/2016	162771
20	LP 195	11/4/2015	0040N	0320E	24	1/29/2016	1118270	1/29/2016	162772

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Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 196	11/4/2015	0040N	0320E	24	1/29/2016	1118271	1/29/2016	162773
20	LP 197	11/4/2015	0040N	0320E	24	1/29/2016	1118272	1/29/2016	162774
20	LP 198	11/4/2015	0040N	0320E	24	1/29/2016	1118273	1/29/2016	162775
20	LP 199	11/4/2015	0040N	0320E	24	1/29/2016	1118274	1/29/2016	162776
18	LP 200	11/4/2015	0040N	0330E	19	1/29/2016	1118275	1/29/2016	162777 (amend 163817)
18	LP 201	11/4/2015	0040N	0330E	19	1/29/2016	1118276	1/29/2016	162778 (amend 163818)
20	LP 202	11/4/2015	0040N	0330E	19	1/29/2016	1118277	1/29/2016	162779
20	LP 203	11/4/2015	0040N	0330E	19	1/29/2016	1118278	1/29/2016	162780
20	LP 204	11/4/2015	0040N	0330E	19	1/29/2016	1118216	1/29/2016	162718
20	LP 205	11/4/2015	0040N	0330E	19	1/29/2016	1118217	1/29/2016	162719
20	LP 211	11/4/2015	0040N	0320E	23	1/29/2016	1118279	1/29/2016	162781
20	LP 212	11/4/2015	0040N	0320E	23	1/29/2016	1118280	1/29/2016	162782
20	LP 213	11/4/2015	0040N	0320E	23	1/29/2016	1118281	1/29/2016	162783
20	LP 214	11/4/2015	0040N	0320E	23	1/29/2016	1118282	1/29/2016	162784
20	LP 215	11/4/2015	0040N	0320E	24	1/29/2016	1118283	1/29/2016	162785
20	LP 216	11/4/2015	0040N	0320E	24	1/29/2016	1118284	1/29/2016	162786
20	LP 217	11/4/2015	0040N	0320E	24	1/29/2016	1118285	1/29/2016	162787
20	LP 218	11/4/2015	0040N	0320E	24	1/29/2016	1118286	1/29/2016	162788
20	LP 219	11/4/2015	0040N	0320E	24	1/29/2016	1118287	1/29/2016	162789
20	LP 220	11/4/2015	0040N	0320E	24	1/29/2016	1118288	1/29/2016	162790
20	LP 221	11/4/2015	0040N	0320E	24	1/29/2016	1118289	1/29/2016	162791
20	LP 222	11/4/2015	0040N	0320E	24	1/29/2016	1118290	1/29/2016	162792
18	LP 223	11/4/2015	0040N	0330E	19	1/29/2016	1118291	1/29/2016	162793 (amend 163819)
18	LP 224	11/4/2015	0040N	0330E	19	1/29/2016	1118292	1/29/2016	162794 (amend 163820)
20	LP 225	11/4/2015	0040N	0330E	19	1/29/2016	1118293	1/29/2016	162795
20	LP 226	11/4/2015	0040N	0330E	19	1/29/2016	1118294	1/29/2016	162796
20	LP 234	11/4/2015	0040N	0320E	23	1/29/2016	1118295	1/29/2016	162797
20	LP 235	11/4/2015	0040N	0320E	23	1/29/2016	1118296	1/29/2016	162798

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
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20	LP 236	11/4/2015	0040N	0320E	23	1/29/2016	1118297	1/29/2016	162799
20	LP 237	11/4/2015	0040N	0320E	23	1/29/2016	1118298	1/29/2016	162800
20	LP 238	11/4/2015	0040N	0320E	24	1/29/2016	1118299	1/29/2016	162801
20	LP 239	11/4/2015	0040N	0320E	24	1/29/2016	1118300	1/29/2016	162802
20	LP 240	11/4/2015	0040N	0320E	24	1/29/2016	1118301	1/29/2016	162803
20	LP 241	11/4/2015	0040N	0320E	24	1/29/2016	1118302	1/29/2016	162804
20	LP 242	11/4/2015	0040N	0320E	24	1/29/2016	1118303	1/29/2016	162805
20	LP 243	11/9/2016	0040N	0330E	16	11/22/2016	1133551	11/21/2016	164572
20	LP 244	11/9/2016	0040N	0330E	16	11/22/2016	1133552	11/21/2016	164573
10	LP 245	11/9/2016	0040N	0330E	16	11/22/2016	1133553	11/21/2016	164574
18	LP 246	11/9/2016	0040N	0330E	16	11/22/2016	1133554	11/21/2016	164575
10	LP 247	11/9/2016	0040N	0330E	17	11/22/2016	1133555	11/21/2016	164576
17	LP 248	11/9/2016	0040N	0330E	17	11/22/2016	1133556	11/21/2016	164577
20	LP 249	11/9/2016	0040N	0330E	17	11/22/2016	1133557	11/21/2016	164578
10	LP 250	11/9/2016	0040N	0330E	8	11/22/2016	1133558	11/21/2016	164579
12	LP 251	11/9/2016	0040N	0330E	8	11/22/2016	1133559	11/21/2016	164580
13	LP 252	11/9/2016	0040N	0330E	8	11/22/2016	1133560	11/21/2016	164581
15	LP 253	11/9/2016	0040N	0330E	8	11/22/2016	1133561	11/21/2016	164582
7	LP 254	11/9/2016	0040N	0330E	8	11/22/2016	1133562	11/21/2016	164583
19	LP 255	11/9/2016	0040N	0330E	8	11/22/2016	1133563	11/21/2016	164584
19	LP 256	11/9/2016	0040N	0330E	8	11/22/2016	1133564	11/21/2016	164585
17	LP 257	11/9/2016	0040N	0330E	8	11/22/2016	1133565	11/21/2016	164586
13	LP 258	11/9/2016	0040N	0330E	8	11/22/2016	1133566	11/21/2016	164587
12	LP 259	11/9/2016	0040N	0330E	8	11/22/2016	1133567	11/21/2016	164588
19	LP 260	11/9/2016	0040N	0330E	8	11/22/2016	1133568	11/21/2016	164589
8	LP 261	11/9/2016	0040N	0330E	8	11/22/2016	1133569	11/21/2016	164590
12	LP 262	11/9/2016	0040N	0330E	9	11/22/2016	1133570	11/21/2016	164591
12	LP 263	11/9/2016	0040N	0330E	9	11/22/2016	1133571	11/21/2016	164592

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
12	LP 264	11/9/2016	0040N	0330E	9	11/22/2016	1133572	11/21/2016	164593
10	LP 265	11/9/2016	0040N	0330E	9	11/22/2016	1133573	11/21/2016	164594
14	LP 266	11/9/2016	0040N	0330E	9	11/22/2016	1133574	11/21/2016	164595
13	LP 267	11/9/2016	0040N	0330E	9	11/22/2016	1133575	11/21/2016	164596
11	LP 268	11/9/2016	0040N	0330E	9	11/22/2016	1133576	11/21/2016	164597
20	LP 269	11/9/2016	0040N	0330E	9	11/22/2016	1133577	11/21/2016	164598
20	LP 300	11/18/2015	0040N	0320E	13	1/29/2016	1118304	1/29/2016	162806
20	LP 301	11/18/2015	0040N	0320E	13	1/29/2016	1118305	1/29/2016	162807
20	LP 302	11/18/2015	0040N	0320E	13	1/29/2016	1118306	1/29/2016	162808
20	LP 303	11/18/2015	0040N	0320E	13	1/29/2016	1118307	1/29/2016	162809
20	LP 304	11/18/2015	0040N	0320E	13	1/29/2016	1118308	1/29/2016	162810
20	LP 305	11/18/2015	0040N	0330E	6	1/29/2016	1118218	1/29/2016	162720
20	LP 306	11/18/2015	0040N	0330E	6	1/29/2016	1118219	1/29/2016	162721
20	LP 307	11/18/2015	0040N	0330E	5	1/29/2016	1118220	1/29/2016	162722
20	LP 308	11/18/2015	0040N	0330E	5	1/29/2016	1118221	1/29/2016	162723
20	LP 309	11/18/2015	0040N	0330E	5	1/29/2016	1118222	1/29/2016	162724
20	LP 310	11/18/2015	0040N	0330E	5	1/29/2016	1118223	1/29/2016	162725
20	LP 311	11/18/2015	0040N	0330E	5	1/29/2016	1118224	1/29/2016	162726
20	LP 312	11/18/2015	0040N	0330E	5	1/29/2016	1118225	1/29/2016	162727
20	LP 313	11/18/2015	0040N	0330E	5	1/29/2016	1118226	1/29/2016	162728
20	LP 314	11/18/2015	0040N	0330E	6	1/29/2016	1118227	1/29/2016	162729
20	LP 315	11/18/2015	0040N	0330E	6	1/29/2016	1118228	1/29/2016	162730
20	LP 316	11/18/2015	0040N	0330E	5	1/29/2016	1118229	1/29/2016	162731
20	LP 317	11/18/2015	0040N	0330E	5	1/29/2016	1118230	1/29/2016	162732
20	LP 318	11/18/2015	0040N	0330E	5	1/29/2016	1118231	1/29/2016	162733
20	LP 319	11/18/2015	0040N	0330E	5	1/29/2016	1118232	1/29/2016	162734
20	LP 320	11/18/2015	0040N	0330E	5	1/29/2016	1118233	1/29/2016	162735
20	LP 321	11/18/2015	0040N	0330E	5	1/29/2016	1118234	1/29/2016	162736

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Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 322	11/18/2015	0040N	0330E	5	1/29/2016	1118235	1/29/2016	162737
20	LP 324	11/18/2015	0040N	0330E	5	1/29/2016	1118236	1/29/2016	162738
20	LP 325	11/18/2015	0040N	0330E	5	1/29/2016	1118237	1/29/2016	162739
20	LP 326	11/18/2015	0040N	0330E	5	1/29/2016	1118238	1/29/2016	162740
20	LP 327	11/18/2015	0040N	0330E	5	1/29/2016	1118239	1/29/2016	162741
20	LP 328	11/23/2015	0040N	0330E	5	1/29/2016	1118240	1/29/2016	162742
20	LP 329	11/23/2015	0040N	0330E	6	1/29/2016	1118241	1/29/2016	162743
20	LP 330	11/23/2015	0040N	0330E	6	1/29/2016	1118242	1/29/2016	162744
20	LP 331	11/23/2015	0040N	0330E	6	1/29/2016	1118243	1/29/2016	162745
20	LP 332	11/23/2015	0040N	0330E	7	1/29/2016	1118309	1/29/2016	162811
20	LP 333	11/23/2015	0040N	0330E	7	1/29/2016	1118310	1/29/2016	162812
20	LP 334	11/23/2015	0040N	0330E	7	1/29/2016	1118311	1/29/2016	162813
20	LP 335	11/23/2015	0040N	0330E	7	1/29/2016	1118312	1/29/2016	162814
18	LP 336	11/23/2015	0040N	0330E	7	1/29/2016	1118313	1/29/2016	162815 (amend 163821)
20	LP 337	11/23/2015	0040N	0330E	7	1/29/2016	1118314	1/29/2016	162816
20	LP 338	11/23/2015	0040N	0320E	12	1/29/2016	1118315	1/29/2016	162817
20	LP 339	11/23/2015	0040N	0320E	12	1/29/2016	1118316	1/29/2016	162818
20	LP 341	11/4/2015	0040N	0330E	5	1/29/2016	1118245	1/29/2016	162747
20	LP 342	11/4/2015	0040N	0330E	4	1/29/2016	1118246	1/29/2016	162748
20	LP 343	11/4/2015	0040N	0330E	4	1/29/2016	1118247	1/29/2016	162749
20	LP 344	11/4/2015	0040N	0330E	4	1/29/2016	1118248	1/29/2016	162750
20	LP 345	11/4/2015	0040N	0330E	4	1/29/2016	1118249	1/29/2016	162751
20	LP 346	11/4/2015	0040N	0330E	5	1/29/2016	1118250	1/29/2016	162752
20	LP 347	11/4/2015	0040N	0330E	4	1/29/2016	1118251	1/29/2016	162753
20	LP 348	11/4/2015	0040N	0330E	4	1/29/2016	1118252	1/29/2016	162754
20	LP 349	11/4/2015	0040N	0330E	4	1/29/2016	1118253	1/29/2016	162755
20	LP 350	11/4/2015	0040N	0330E	4	1/29/2016	1118254	1/29/2016	162756
20	LP 403	3/31/2016	0040N	0330E	9	6/10/2016	1124897	6/13/2016	163490

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 404	3/31/2016	0040N	0330E	9	6/10/2016	1124898	6/13/2016	163491
20	LP 405	3/31/2016	0040N	0330E	9	6/10/2016	1124899	6/13/2016	163492
20	LP 406	3/31/2016	0040N	0330E	9	6/10/2016	1124900	6/13/2016	163493
20	LP 409	3/31/2016	0040N	0330E	9	6/10/2016	1124903	6/13/2016	163496
20	LP 410	3/31/2016	0040N	0330E	9	6/10/2016	1124904	6/13/2016	163497
20	LP 414	3/31/2016	0040N	0330E	9	6/10/2016	1124908	6/13/2016	163501
20	LP 420	3/31/2016	0040N	0330E	16	6/10/2016	1124914	6/13/2016	163507
20	LP 421	3/31/2016	0040N	0330E	16	6/10/2016	1124915	6/13/2016	163508
15	LP 423	3/31/2016	0040N	0330E	8	6/10/2016	1124917	6/13/2016	163510 (amend 163836)
20	LP 426	3/31/2016	0040N	0320E	23	6/10/2016	1124920	6/13/2016	163513
20	LP 427	3/31/2016	0040N	0320E	23	6/10/2016	1124921	6/13/2016	163514
20	LP 428	3/31/2016	0040N	0320E	23	6/10/2016	1124922	6/13/2016	163515
20	LP 429	3/31/2016	0040N	0320E	23	6/10/2016	1124923	6/13/2016	163516
20	LP 430	3/31/2016	0040N	0320E	23	6/10/2016	1124924	6/13/2016	163517
20	LP 431	3/31/2016	0040N	0320E	23	6/10/2016	1124925	6/13/2016	163518
20	LP 432	3/31/2016	0040N	0320E	23	6/10/2016	1124926	6/13/2016	163519
20	LP 433	3/31/2016	0040N	0320E	23	6/10/2016	1124927	6/13/2016	163520
20	LP 434	3/31/2016	0040N	0320E	24	6/10/2016	1124928	6/13/2016	163521
20	LP 435	3/31/2016	0040N	0320E	24	6/10/2016	1124929	6/13/2016	163522
20	LP 436	3/31/2016	0040N	0320E	24	6/10/2016	1124930	6/13/2016	163523
20	LP 437	3/31/2016	0040N	0320E	24	6/10/2016	1124931	6/13/2016	163524
20	LP 438	6/7/2016	0040N	0320E	11	9/1/2016	1129779	9/6/2016	164013
20	LP 439	6/7/2016	0040N	0320E	11	9/1/2016	1129780	9/6/2016	164014
20	LP 440	6/7/2016	0040N	0320E	11	9/1/2016	1129781	9/6/2016	164015
20	LP 441	6/7/2016	0040N	0320E	12	9/1/2016	1129782	9/6/2016	164016
20	LP 442	6/7/2016	0040N	0320E	12	9/1/2016	1129783	9/6/2016	164017
20	LP 443	6/7/2016	0040N	0320E	12	9/1/2016	1129784	9/6/2016	164018
20	LP 444	6/7/2016	0040N	0320E	12	9/1/2016	1129785	9/6/2016	164019

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 445	6/7/2016	0040N	0320E	12	9/1/2016	1129786	9/6/2016	164020
20	LP 446	6/7/2016	0040N	0320E	12	9/1/2016	1129787	9/6/2016	164021
20	LP 447	6/7/2016	0040N	0320E	12	9/1/2016	1129788	9/6/2016	164022
20	LP 448	6/7/2016	0040N	0320E	12	9/1/2016	1129789	9/6/2016	164023
18	LP 449	6/7/2016	0040N	0330E	7	9/1/2016	1129790	9/6/2016	164024
20	LP 450	6/7/2016	0040N	0320E	11	9/1/2016	1129791	9/6/2016	164025
20	LP 451	6/7/2016	0040N	0320E	11	9/1/2016	1129792	9/6/2016	164026
20	LP 452	6/7/2016	0040N	0320E	11	9/1/2016	1129793	9/6/2016	164027
20	LP 453	6/7/2016	0040N	0320E	11	9/1/2016	1129794	9/6/2016	164028
20	LP 454	6/7/2016	0040N	0320E	11	9/1/2016	1129795	9/6/2016	164029
20	LP 455	6/7/2016	0040N	0320E	12	9/1/2016	1129796	9/6/2016	164030
20	LP 456	6/7/2016	0040N	0320E	12	9/1/2016	1129797	9/6/2016	164031
20	LP 457	6/7/2016	0040N	0320E	12	9/1/2016	1129798	9/6/2016	164032
20	LP 458	6/7/2016	0040N	0320E	12	9/1/2016	1129799	9/6/2016	164033
20	LP 459	6/7/2016	0040N	0320E	12	9/1/2016	1129800	9/6/2016	164034
20	LP 460	6/7/2016	0040N	0320E	12	9/1/2016	1129801	9/6/2016	164035
20	LP 462	6/7/2016	0040N	0320E	14	9/1/2016	1129803	9/6/2016	164037
20	LP 463	6/7/2016	0040N	0320E	14	9/1/2016	1129804	9/6/2016	164038
20	LP 464	6/7/2016	0040N	0320E	14	9/1/2016	1129805	9/6/2016	164039
20	LP 465	6/7/2016	0040N	0320E	14	9/1/2016	1129806	9/6/2016	164040
20	LP 466	6/7/2016	0040N	0320E	14	9/1/2016	1129807	9/6/2016	164041
20	LP 525	8/13/2016	0040N	0330E	9	10/31/2016	1132183	10/31/2016	164319
20	LP 526	8/13/2016	0040N	0330E	9	10/31/2016	1132184	10/31/2016	164320
20	LP 527	8/13/2016	0040N	0330E	9	10/31/2016	1132185	10/31/2016	164321
20	LP 552	8/13/2016	0040N	0320E	24	10/31/2016	1132186	10/31/2016	164322
20	LP 553	8/13/2016	0040N	0320E	24	10/31/2016	1132187	10/31/2016	164323
20	LP 554	8/13/2016	0040N	0320E	24	10/31/2016	1132188	10/31/2016	164324
18	LP 555	8/13/2016	0040N	0330E	19	10/31/2016	1132189	10/31/2016	164325

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
18	LP 556	8/13/2016	0040N	0330E	19	10/31/2016	1132190	10/31/2016	164326
20	LP 557	8/13/2016	0040N	0330E	19	10/31/2016	1132191	10/31/2016	164327
20	LP 558	8/13/2016	0040N	0330E	19	10/31/2016	1132192	10/31/2016	164328
20	LP 559	8/13/2016	0040N	0330E	19	10/31/2016	1132193	10/31/2016	164329
20	LP 560	8/13/2016	0040N	0320E	24	10/31/2016	1132194	10/31/2016	164330
20	LP 561	8/13/2016	0040N	0320E	24	10/31/2016	1132195	10/31/2016	164331
20	LP 562	12/30/2016	0050N	0330E	31	1/10/2017	1137226	1/9/2017	165022
20	LP 563	12/30/2016	0050N	0330E	31	1/10/2017	1137227	1/9/2017	165023
20	LP 564	12/30/2016	0050N	0330E	31	1/10/2017	1137228	1/9/2017	165024
20	LP 565	12/30/2016	0050N	0330E	31	1/10/2017	1137229	1/9/2017	165025
20	LP 566	12/30/2016	0050N	0330E	31	1/10/2017	1137230	1/9/2017	165026
20	LP 567	12/30/2016	0050N	0330E	31	1/10/2017	1137231	1/9/2017	165027
20	LP 568	12/30/2016	0050N	0330E	32	1/10/2017	1137232	1/9/2017	165028
20	LP 569	12/30/2016	0050N	0330E	32	1/10/2017	1137233	1/9/2017	165029
18	LP 570	12/28/2016	0050N	0330E	31	1/10/2017	1137234	1/9/2017	165030
18	LP 571	12/30/2016	0050N	0330E	31	1/10/2017	1137235	1/9/2017	165031
20	LP 572	12/30/2016	0050N	0330E	31	1/10/2017	1137236	1/9/2017	165032
20	LP 573	12/30/2016	0050N	0330E	31	1/10/2017	1137237	1/9/2017	165033
20	LP 574	12/30/2016	0050N	0330E	31	1/10/2017	1137238	1/9/2017	165034
20	LP 575	12/30/2016	0050N	0330E	31	1/10/2017	1137239	1/9/2017	165035
20	LP 576	12/30/2016	0050N	0330E	31	1/10/2017	1137240	1/9/2017	165036
20	LP 577	12/30/2016	0050N	0330E	31	1/10/2017	1137241	1/9/2017	165037
20	LP 578	12/30/2016	0050N	0330E	32	1/10/2017	1137242	1/9/2017	165038
20	LP 579	12/30/2016	0050N	0330E	32	1/10/2017	1137243	1/9/2017	165039
20	LP 580	12/28/2016	0040N	0320E	1	1/10/2017	1137244	1/9/2017	165002
18	LP 581	12/28/2016	0040N	0330E	6	1/10/2017	1137245	1/9/2017	165040
18	LP 582	12/28/2016	0040N	0330E	6	1/10/2017	1137246	1/9/2017	165041
20	LP 583	12/28/2016	0040N	0330E	6	1/10/2017	1137247	1/9/2017	165042

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 584	12/28/2016	0040N	0330E	6	1/10/2017	1137248	1/9/2017	165043
20	LP 585	12/29/2016	0040N	0330E	5	1/10/2017	1137249	1/9/2017	165044
20	LP 586	12/29/2016	0040N	0330E	5	1/10/2017	1137250	1/9/2017	165045
20	LP 587	12/29/2016	0040N	0330E	5	1/10/2017	1137251	1/9/2017	165046
20	LP 588	12/29/2016	0040N	0330E	5	1/10/2017	1137252	1/9/2017	165047
20	LP 589	12/29/2016	0040N	0330E	5	1/10/2017	1137253	1/9/2017	165048
20	LP 590	12/28/2016	0040N	0320E	1	1/10/2017	1137254	1/9/2017	165003
20	LP 591	12/28/2016	0040N	0320E	1	1/10/2017	1137255	1/9/2017	165004
18	LP 592	12/28/2016	0040N	0330E	6	1/10/2017	1137256	1/9/2017	165049
18	LP 593	12/28/2016	0040N	0330E	6	1/10/2017	1137257	1/9/2017	165050
20	LP 594	12/28/2016	0040N	0330E	6	1/10/2017	1137258	1/9/2017	165051
20	LP 595	12/28/2016	0040N	0330E	6	1/10/2017	1137259	1/9/2017	165052
20	LP 596	12/28/2016	0040N	0320E	1	1/10/2017	1137260	1/9/2017	165005
20	LP 597	12/28/2016	0040N	0320E	1	1/10/2017	1137261	1/9/2017	165006
20	LP 598	12/28/2016	0040N	0320E	1	1/10/2017	1137262	1/9/2017	165007
18	LP 599	12/28/2016	0040N	0330E	6	1/10/2017	1137263	1/9/2017	165053
18	LP 600	12/28/2016	0040N	0330E	6	1/10/2017	1137264	1/9/2017	165054
20	LP 601	12/28/2016	0040N	0330E	6	1/10/2017	1137265	1/9/2017	165055
20	LP 602	12/28/2016	0040N	0330E	6	1/10/2017	1137266	1/9/2017	165056
20	LP 603	12/28/2016	0040N	0330E	6	1/10/2017	1137267	1/9/2017	165057
20	LP 604	12/28/2016	0040N	0320E	1	1/10/2017	1137268	1/9/2017	165008
20	LP 605	12/28/2016	0040N	0320E	1	1/10/2017	1137269	1/9/2017	165009
20	LP 606	12/28/2016	0040N	0320E	1	1/10/2017	1137270	1/9/2017	165010
20	LP 607	12/28/2016	0040N	0320E	1	1/10/2017	1137271	1/9/2017	165011
18	LP 608	12/28/2016	0040N	0330E	6	1/10/2017	1137272	1/9/2017	165058
18	LP 609	12/28/2016	0040N	0330E	6	1/10/2017	1137273	1/9/2017	165059
20	LP 610	12/28/2016	0040N	0330E	6	1/10/2017	1137274	1/9/2017	165060
20	LP 611	12/28/2016	0040N	0330E	6	1/10/2017	1137275	1/9/2017	165061

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 612	12/28/2016	0040N	0320E	12	1/10/2017	1137276	1/9/2017	165012
20	LP 613	12/28/2016	0040N	0320E	12	1/10/2017	1137277	1/9/2017	165013
20	LP 614	12/28/2016	0040N	0320E	12	1/10/2017	1137278	1/9/2017	165014
20	LP 615	12/28/2016	0040N	0320E	12	1/10/2017	1137279	1/9/2017	165015
20	LP 616	12/28/2016	0040N	0320E	12	1/10/2017	1137280	1/9/2017	165016
18	LP 617	12/28/2016	0040N	0330E	7	1/10/2017	1137281	1/9/2017	165062
18	LP 618	12/28/2016	0040N	0330E	7	1/10/2017	1137282	1/9/2017	165063
20	LP 619	12/28/2016	0040N	0330E	7	1/10/2017	1137283	1/9/2017	165064
20	LP 620	12/28/2016	0040N	0320E	12	1/10/2017	1137284	1/9/2017	165017
20	LP 621	12/28/2016	0040N	0320E	12	1/10/2017	1137285	1/9/2017	165018
20	LP 622	12/28/2016	0040N	0320E	12	1/10/2017	1137286	1/9/2017	165019
20	LP 623	12/28/2016	0040N	0320E	12	1/10/2017	1137287	1/9/2017	165020
20	LP 624	12/28/2016	0040N	0320E	12	1/10/2017	1137288	1/9/2017	165021
18	LP 625	12/28/2016	0040N	0330E	7	1/10/2017	1137289	1/9/2017	165065
18	LP 626	12/28/2016	0040N	0330E	7	1/10/2017	1137290	1/9/2017	165066
20	LP 627	12/29/2016	0050N	0330E	32	1/10/2017	1137291	1/9/2017	165067
20	LP 629	11/3/2016	0040N	0320E	11	11/23/2016	1133578	11/23/2016	164606
13	LP 630	11/3/2016	0040N	0320E	11	11/23/2016	1133579	11/23/2016	164607
20	LP 631	11/4/2016	0040N	0320E	15	11/23/2016	1133580	11/23/2016	164608
20	LP 632	11/4/2016	0040N	0320E	14	11/23/2016	1133581	11/23/2016	164609
20	LP 633	11/4/2016	0040N	0320E	14	11/23/2016	1133582	11/23/2016	164610
20	LP 634	11/4/2016	0040N	0320E	14	11/23/2016	1133583	11/23/2016	164611
20	LP 635	11/4/2016	0040N	0320E	14	11/23/2016	1133584	11/23/2016	164612
20	LP 636	11/4/2016	0040N	0320E	15	11/23/2016	1133585	11/23/2016	164613
20	LP 637	11/4/2016	0040N	0320E	15	11/23/2016	1133586	11/23/2016	164614
20	LP 638	11/4/2016	0040N	0320E	14	11/23/2016	1133587	11/23/2016	164615
20	LP 639	11/4/2016	0040N	0320E	14	11/23/2016	1133588	11/23/2016	164616
20	LP 640	11/4/2016	0040N	0320E	15	11/23/2016	1133589	11/23/2016	164617

APPENDX A: TABLE OF PLACER CLAIMS, DAJIN RESOURCES CORP. TEELS MARSH

						BLM	BLM Serial	County	County
Approximate	Claim	Location				Recording	Number	Recording	Document
Acreage	Name	Date	Township	Range	Section	Date	(NMC #)	Date	Number
20	LP 641	11/4/2016	0040N	0320E	15	11/23/2016	1133590	11/23/2016	164618
20	LP 642	11/4/2016	0040N	0320E	15	11/23/2016	1133591	11/23/2016	164619
20	LP 643	11/4/2016	0040N	0320E	15	11/23/2016	1133592	11/23/2016	164620
20	LP 644	11/4/2016	0040N	0320E	15	11/23/2016	1133593	11/23/2016	164621
20	LP 645	11/4/2016	0040N	0320E	22	11/23/2016	1133594	11/23/2016	164622
20	LP 646	11/4/2016	0040N	0320E	22	11/23/2016	1133595	11/23/2016	164623
20	LP 647	11/4/2016	0040N	0320E	22	11/23/2016	1133596	11/23/2016	164624
20	LP 648	11/4/2016	0040N	0320E	22	11/23/2016	1133597	11/23/2016	164625
20	LP 649	11/4/2016	0040N	0320E	22	11/23/2016	1133598	11/23/2016	164626
20	LP 650	11/4/2016	0040N	0320E	22	11/23/2016	1133599	11/23/2016	164627
20	LP 659	11/3/2016	0040N	0320E	11	11/23/2016	1133600	11/23/2016	164628