

---

***CSA NI 43-101 Technical Report on the Santa Daniela Gold Project, Municipios of Sahuaripa and Yecora, Sonora, Mexico***

**Prepared for Melior Resources Inc.**

**by**

**Matthew D. Gray, Ph.D., C.P.G. #10688**

**Resource Geosciences Incorporated**



**Date: 18 January 2021**  
**Effective date: 24 August 2020**



***Maiz Azul mineralized outcrop in Arroyo Maiz Azul.***



## Table of Contents

<b>Item</b>	<b>Page</b>
Title Page.....	cover
Table of Contents, Table of Figures, List of Tables, List of Appendices.....	i
1 Summary.....	1
1.1 General Summary .....	1
1.2 Property Description.....	1
1.3 Ownership .....	1
1.4 Geology and Mineralization.....	1
1.5 Exploration and Drilling .....	2
1.6 Mineral Processing and Metallurgical Testwork.....	3
1.7 Historical Mineral Resources .....	3
1.8 Conclusions and Recommendations.....	3
2 Introduction and Terms of Reference .....	6
2.1 Introduction.....	6
2.2 Terms of Reference.....	6
2.3 Purpose of Report .....	6
2.4 Sources of Information .....	6
2.5 Field Examination and Data Review by M. Gray. ....	7
2.6 Definitions and Translations.....	9
3 Reliance on Other Experts.....	10
4 Property Description and Location.....	12
4.1 Area and Location .....	12
4.2 Melior – Rancho Proposed Transaction .....	12
4.3 Claims and Title.....	15
4.4 Surface Rights.....	18
4.5 Environmental Liability .....	20
4.6 Permits .....	20
4.6.1 Environmental .....	20
4.6.2 Water.....	21
4.7 Access, Title, and Permit Risks.....	21
4.7.1 Access Risks.....	21
4.7.2 Title Risks .....	21
4.7.3 Permit Risks.....	21
5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography.....	22



---

5.1	Accessibility .....	22
5.2	Physiography, Climate and Vegetation .....	24
5.3	Local Resources and Infrastructure .....	24
6	History .....	26
6.1	Prior Ownership.....	26
6.2	Prior Exploration.....	26
6.2.1	Altos Hornos de México S.A de C.V – JLL Joint Venture.....	26
6.2.1.1	Rock Chip Sampling.....	26
6.2.1.2	Geophysical Surveys .....	28
6.2.1.3	Diamond Core Drilling .....	32
6.3	Historical Metallurgical Studies .....	36
6.4	Historical Resource Estimates .....	36
6.5	Prior Production.....	36
7	Geological Setting.....	37
7.1	Regional Geology.....	37
7.2	Local Geology .....	39
7.2.1	General Geology.....	39
7.2.2	Maiz Azul Area Lithology Descriptions .....	39
7.2.2.1	Mafic Dikes.....	41
7.2.2.2	Andesitic Tuff.....	41
7.2.2.3	Felsic Tuff.....	42
7.2.2.4	Quartz Dacite Tuff .....	43
7.2.2.5	Porphyritic Andesite .....	43
7.2.3	Maiz Azul Area Structure .....	44
7.2.4	Maiz Azul Area Mineralized Zones .....	45
7.2.4.1	Maiz Azul Zone.....	45
7.2.4.2	La Cascada Zone .....	48
7.2.4.3	X Structure .....	49
7.2.5	Maiz Azul Area Alteration .....	50
7.2.5.1	Argillic.....	52
7.2.5.2	Propylitic.....	52
7.2.5.3	Silica – Clay.....	52
7.2.6	Maiz Azul Area Vein Types.....	52
7.2.6.1	Early stage chalcedonic quartz veins.....	52
7.2.6.2	Banded white quartz veins .....	53
7.2.6.3	Late stage cryptocrystalline grey silica veinlets .....	56
7.3	Oxidation .....	56
7.4	Conclusions.....	57
8	DEPOSIT TYPES .....	58
9	Exploration .....	60
9.1	General.....	60
9.2	Geologic Mapping .....	60
9.3	Thematic Mapping.....	60



---

9.4	Rock Chip Sampling.....	62
10	Drilling .....	64
10.1	Drilling History .....	64
11	Sampling Method and Approach .....	65
11.1	Sampling Field Methods.....	65
11.2	Analytical Methods .....	65
11.3	Results of Security, Quality Control Procedures and Adequacy of Results.....	65
12	Data Verification.....	67
13	Mineral Processing and Metallurgical Testing .....	69
14	Mineral Resource Estimates.....	69
23	Adjacent Properties.....	70
24	Other Relevant Data and Information .....	71
25	Interpretation and Conclusions .....	72
25.1	Geologic Interpretation.....	72
25.2	Project Opportunities.....	75
25.3	Project Risks .....	76
25.3.1	Permitting Risk.....	76
25.3.2	Water Supply Risk .....	76
25.3.3	Surface Access Risks .....	76
25.3.4	Metallurgical Risk.....	76
26	Recommendations .....	78
26.1	Stage 1: Data Confirmation, Drill Testing of the La Cascada and X Structure targets, Regional Geochemical and Geological Studies .....	78
26.1.1	Historic Data Validation.....	78
26.1.2	Drill Testing of La Cascada, X Structure, and Structural Intersection Targets .....	78
26.1.3	Regional Exploration.....	78
26.1.3.1	Cost.....	79
26.2	Stage 2: Definition Drilling of Stage 1 Drill Discoveries and Detailed Geologic and Geochemical Evaluation of Stage 1 Target Discoveries.....	79
26.2.1	Resource Definition Drilling .....	79
26.2.2	Evaluation of New Targets.....	79
26.2.3	Cost.....	79
27	References.....	81
28	Effective Date and Signature of Author .....	84



List of Figures

Figure	Page
Figure 2-1. Field visit, 8 January 2020, L to R: S. Ristorcelli, J. Baltierrez, W. Pincus, M. Gray, pilot E. Castro. ....	8
Figure 4-1. Location map, Santa Daniela Project.....	14
Figure 4-2. Mining concessions, Santa Daniela Project.....	17
Figure 4-3. Surface rights in project area. ....	19
Figure 5-1. Project location and regional infrastructure. ....	23
Figure 5-2. View of typical topography and vegetation at Santa Daniela, looking north from drillpad MH18-01, across Arroyo Maiz Azul. ....	24
Figure 6-1. Historical (pre-2020) rock chip gold sampling results, plotted on shaded topographic base, 20m contour interval.....	27
Figure 6-2. Geophysical survey areas plotted on shaded relief map. ....	29
Figure 6-3. Ground magnetic survey total magnetic intensity, reduced to pole. ....	31
Figure 6-4. RGI Geologist Rodolfo Saucedo examining AHMSA drill core, Paika's Yecora field office. ....	32
Figure 6-5. Historical drillhole locations and project claim boundaries plotted on shaded relief map. 33	
Figure 6-6. Historical drilling and rock chip Au at Maiz Azul, plotted on shaded topographic base, 20m contour interval). ....	34
Figure 7-1. Regional geologic map (Servicio Geologico Mexicano, 2000). ....	38
Figure 7-2. Maiz Azul Area geologic map (Castellanos and Reyna, 2020). ....	40
Figure 7-3. Hand samples of mafic dikes. ....	41
Figure 7-4. Stratified andesitic tuff outcrop.....	42
Figure 7-5. Hand samples of rhyolitic tuff. Note pen barrel for scale. ....	42
Figure 7-6. Hand samples of quartz dacite tuff. Note pen barrel for scale.....	43
Figure 7-7. Hand samples of porphyritic andesite. Note pen for scale. ....	44
Figure 7-8. Silicified veined and brecciated zone exposed along Arroyo Maiz Azul. View looking northwest. Mineralized zone dips gently to the southwest. ....	46
Figure 7-9. Cross section through Maiz Azul mineralized structure, looking NA292, showing historic drillhole and rock chip assays. ....	47
Figure 7-10. Cross section through Maiz Azul mineralized structure, looking NA330, showing historic drillhole and rock chip assays. ....	47
Figure 7-11. Mineralized intercept in MA18-02, below the gently dipping tabular Maiz Azul mineralized zone. Solid yellow lines denote interval 185.6 to 187.7m with composite intercept of 2.1m @ 9.2 gpt Au. Individual sample interval assays shown in figure. Dashed line is 186.6m. Downhole depth increases left to right, going down. ....	48
Figure 7-12. View looking north at arroyo exposure of the La Cascada zone. Small exploration adits Cascada 1 and Cascada 2 are developed on veined breccia zones, contained within a broader silica-clay and argillicly altered zone. Historic sampling of the zone returned high grade (>8 gpt Au) results from the breccia and vein zones, and highly anomalous gold contents in the altered wallrock. ....	49
Figure 7-13. Quartz veinlets in a zone of silica-clay alteration in porphyritic andesite along the trace of the X Structure ..... 50	
Figure 7-14. Southern projection of X Structure exposed as zone of silica-clay alteration of porphyritic andesite with stockwork fractures with Fe-oxide. ....	50
Figure 7-15. Hydrothermal alteration map, Maiz Azul area (Castellanos and Reyna, 2020).....	51
Figure 7-16 Drillcore, M18-01, ~114.5 to 117m (upper left to bottom right), quartz veined and quartz cemented breccia zone in quartz dacite tuff. Veined zone assayed 3.54, 0.60, 4.19, and 3.12 gpt Au respectively for samples MA-98 through MA-101, 114.35 to 117.0m. ....	53
Figure 7-17. Close up of multistage quartz veinlet, drillhole MA18-01, ~115.5m depth. Early stage, open space filling, white crystalline quartz at margin of veinlet, and later low temperature silica filling open space at center of veinlet. Note veinlet crosscuts zone of silica cemented breccia. Interval assayed 4.19 gpt Au. ....	54



Figure 7-18. Drillcore M18-03, knife at ~104.6m. Interval 103.80 to 104.80m assayed 3.12 gpt Au, 104.80 to 105.70m assayed 6.92 gpt Au. ....	54
Figure 7-19. Drillcore MA18-03, breccia vein zone at ~104.6m. This drill core sample assayed 3.12 gpt Au. ....	55
Figure 7-20. Drillcore MA18-03, ~105m depth, silica matrix hydrothermal breccia. Note: banded silica rim on dark silicified volcanic clast in lower left of photo; angular clasts of dense grey silica and weakly banded silica in siliceous microbreccia matrix. This interval assayed 6.92 gpt Au. ....	55
Figure 7-21. Banded silica vein fragment as breccia clast, below and right of knife blade, drillhole MA18-03, ~98m depth. Interval 98.00 to 99.05m assayed 7.7 gpt Au. ....	55
Figure 7-22. Hand specimen of quartz vein breccia zone exposed along Arroyo Maiz Azul. Note similarity to breccia seen in drillcore in Figure 7-19. ....	56
Figure 9-1. Thematically mapped interpreted hydrothermal alteration (Perry, 2020). ....	61
Figure 9-2. Gold assays, rock chip samples collected by Ranchero in 2020. ....	63
Figure 25-1. Maiz Azul area geology, historical rock chip gold assay data, and historical drillhole locations. ....	74
Figure 25-2. Left to right, high level exposures of Maiz Azul mineralized zone, La Cascada mineralized zone, and X Structure zone. ....	75



### List of Tables

Figure	Page
Table 1. Historical drillhole intercepts* .....	2
Table 1-2. Recommended Two Stage Work Plan and Budget, Santa Daniela Project .....	5
Table 4-1. Listing of Mining Concessions.....	16
Table 6-1. Historic exploration expenditures. ....	26
Table 6-2. Historical drillholes .....	32
Table 6-3. Historical drillhole intercepts* .....	36
Table 12-1. Rock chip sample assay results, independent samples, M Gray. ....	67
Table 26-1. Recommended Work Plan and Budget, Santa Daniela Project.....	80

### List of Appendices

Figure	Page
Appendix 1. Legal Letters of Opinion, Mining Concession Titles, Surface Rights, Water Rights, Environmental Permits.....	85
Appendix 2. Mining Concession Titles .....	88
Appendix 3. Temporary Occupation Permit, Mulatos Ejido.....	100
Appendix 4. Environmental Permit Resolution. ....	107
Appendix 5. Water Concession Title .....	112
Appendix 6. Assay certificate and sample photos, independent samples collected by M Gray .....	116



## **1 SUMMARY**

### **1.1 General Summary**

Melior Resources Inc. (Melior) contracted Resource Geosciences Incorporated (RGI) to prepare this updated Technical Report on the Santa Daniela, Sonora, project. This report is an update of an unpublished 15 October 2020 report originally prepared for Ranchero Gold Corporation. (Ranchero). Melior announced on 2 November 2020 that it has entered into a non-binding letter of intent dated October 31, 2020 with Ranchero with respect to a proposed transaction whereby Melior will acquire all of the issued and outstanding common shares in the capital of Ranchero. Ranchero holds an indirect 99.9% interest in a 22,367-hectare gold exploration property located in the Sierra Madre Occidental gold-belt in eastern Sonora, Mexico, known as the Santa Daniela property, subject to a 2% NSR to prior concession owners. This report has been prepared to comply with the disclosure and reporting requirements of CSA NI43-101, describes the historical work completed at the project, summarizes work completed by RGI at the project, and recommends additional work to further advance the project. The effective date of this report is 24 August 2020.

### **1.2 Property Description**

The Santa Daniela project is located in the Municipalities of Sahuaripa and Yecora, State of Sonora, Mexico. The Maiz Azul area, the most advanced exploration target, lies 226 km E-SE of the city of Hermosillo, Sonora, 6 km S-SE of the town of Mulatos, Sonora, and 5km E of Alamos Gold's Mulatos Mine. The project area is centered at approximately 725470E 3171500N UTM WGS84 Z12N. The project hosts low sulfidation epithermal gold-silver mineralization at the Maiz Azul and La Cascada targets, and due to its location within a district hosting high sulfidation epithermal deposits, it is considered prospective for discovery of concealed high sulfidation epithermal gold deposits. For purposes of this evaluation, only Au and Ag are of potential significance.

### **1.3 Ownership**

The project mineral rights are held in 8 mining concessions covering approximately 222.67 square kilometers. Surface rights in the Maiz Azul area are held by the Ejido Mulatos, a communal agrarian cooperative. A valid surface rights agreement covering the Maiz Azul area, the most advanced exploration target at the project, is in effect, allowing mineral exploration and development. Exploration has been carried out under the authority of agreements between the project operators and the Ejido Mulatos.

### **1.4 Geology and Mineralization**

The Santa Daniela project lies within the Sierra Madre Occidental (SMO) province, a regionally extensive Tertiary volcanic field, comprised of two distinct volcanic sequences, an older andesitic and dacitic series, and a younger, pyroclastic dominated rhyolitic series. The traditional nomenclature refers to these as the Serie Volcanica Inferior (Lower



Series) and Serie Volcanica Superior (Upper Series). The Lower Series is dominated by Paleocene and Eocene andesitic lavas and pyroclastic deposits, with interbedded volcanoclastic strata. Silicic volcanic units are present but are a minor component. The volcanic strata of the Lower Series are cut by calc-alkaline intrusives. The Upper Series unconformably overlies the Lower Series with erosional disconformity and comprises a sequence dominated by Oligocene and early Miocene dacitic and rhyolitic pyroclastic strata and volcanoclastic strata. Most significant metal occurrences in the SMO are hosted by rocks of the Lower Series or the underlying Mesozoic strata.

The Santa Daniela project area is underlain by the Lower Series volcanic sequence comprised of Paleocene andesitic and dacitic volcanic rocks interbedded with epiclastic rocks of similar composition, capped by Upper Series Oligocene ignimbrites. The favorable Lower Series rocks are exposed in valleys incised through the overlying Upper Series rocks.

Mapping conducted as part of the study for this report documented zones of quartz veining and hydrothermal alteration consistent with the upper levels of a low sulfidation epithermal mineralized system. Historical drill programs in one of these alteration zones, the Maiz Azul zone, identified potentially significant gold mineralized zones, as summarized in Table 1.

**Table 1. Historical drillhole intercepts\*.**

Drillhole	From m	To m	Length	Au ppm	Ag ppm
MA-18-01	114.35	120.05	5.70	1.64	2.11
MA-18-02	115.55	120.65	5.10	0.75	1.62
MA-18-02	121.70	128.90	7.20	0.47	1.51
MA-18-03	84.00	88.05	4.05	0.75	1.44
MA-18-03	97.30	108.90	11.60	4.23	9.37
MA-18-04	116.70	120.80	4.10	1.24	0.99
MA-18-04	217.15	221.15	4.00	0.32	2.23

\*Intercepts reported according to the following criteria: Minimum composite length 3m; minimum composite grade 0.25 gpt Au; cutoff grade for composite interval 0.25 gpt Au; allowable internal waste below cutoff grade, 1m maximum.

**These drillhole results are historical in nature, have not been verified by the author, and should not be relied upon, and Melior is not treating the historical drillhole data as current data,** however the author has no reason to doubt the validity of the reported historic results, and the author considers them adequate for the purposes of this report, including the data validation recommended in Section 26 of this report.

## 1.5 Exploration and Drilling

Melior has not conducted any exploration drilling at the project. Prior lessee of the project, Altos Hornos de Mexico SA de CV, conducted 3,380.05 m of drilling in 14 diamond core drillholes.



## 1.6 Mineral Processing and Metallurgical Testwork

No metallurgical studies have been conducted.

## 1.7 Historical Mineral Resources

Historical mineral resources have not been reported for the property.

## 1.8 Conclusions and Recommendations

Historical outcrop and drillcore assays and outcropping, mappable vein zones and hydrothermal alteration zones demonstrate that the Santa Daniela project is prospective for hosting a structurally controlled, low sulfidation epithermal gold deposit. **The 2016 through 2019 drilling results are historical in nature, have not been verified by the author, and should not be relied upon, and Melior is not treating the historical drillhole data as current data**, however the author has no reason to doubt the validity of the reported historical results. The historical drill results demonstrate potentially significant mineralization in the Maiz Azul zone. High priority targets for drill testing have been identified by the historical work and recent mapping. The La Cascada and Maiz Azul zones were known from prior historical sampling, and a new target area, the X Structure, was identified during mapping in 2020. A geologically reasonable but speculative target, the structural intersection of high angle structures with the Maiz Azul structure is proposed based upon the recent mapping. The project merits drill testing and further exploration. Specific recommendations are:

1. Confirm, by diamond core drilling, the mineralization indicated by historical drilling in the Maiz Azul structural zone and demonstrate strike and dip continuity of the mineralized zone exposed in the Arroyo Maiz Azul.
2. Explore, by diamond core drilling, gold mineralization in the La Cascada structural zone.
3. Test mineralization at depth, by diamond core drilling, along the X Structure.
4. Test for mineralization at the projected intersection of high angle mineralized structures with the Maiz Azul structure.
5. Discover new mineralized zones in areas of the concession that have not yet been mapped and evaluated. Outside of the Maiz Azul area, the concessions comprise an early stage exploration opportunity that merits evaluation. Analogs to targets that should be sought are Maiz Azul style low sulfidation epithermal mineralization and high sulfidation mineralization similar to the La India and Mulatos gold deposits. Oligocene-Miocene ignimbritic and extrusive volcanic strata cover much of the concessions, and these areas are not considered prospective but erosional windows exposing



potentially mineralized Lower Series strata could be sought using regional stream sediment geochemical surveys. The utility of this method could be quickly demonstrated or disproven with an orientation survey over the Maiz Azul area.

A 12-month, 2 stage work plan is recommended. The first stage comprises 6 months and encompasses: validation and confirmation of the mineralization demonstrated by historic rock chip and drillhole database; drill testing of the La Cascada, X Structure, and structural intersection targets; and regional geochemical and geological studies to discern areas prospective for hosting mineralization (and conversely, to identify areas covered by unmineralized volcanic cover that postdates the known mineralizing events; such areas can be removed from the mineral concession holdings). Stage 1 includes 3,000m of diamond core drilling.

The second stage, lasting 6 months, which is conditional upon positive results from the first, comprises 10,000m of definition drilling of mineralized zones confirmed during the Stage 1 drill program and detailed geologic mapping and geochemical surveys of mineralized areas discerned during Stage 1 exploration. Exclusive of corporate costs and holding costs, the total recommended Stage 1 budget is \$1.2M USD. The conditional Stage 2 budget is \$3.2M (Table 1-2). All Stage 2 work is contingent upon successful results from Stage 1 work.



**Table 1-2. Recommended Two Stage Work Plan and Budget, Santa Daniela Project**

**Stage 1: Data Confirmation, Drill Testing Known Targets, Regional Evaluation**

Activity or Concept	Month Start	Month End	Cost USD
Systematic surface sampling and assays	1	3	50,000
Regional geochemical survey and reconnaissance mapping	1	3	75,000
Diamond core drilling, 3,000 meters, Maiz Azul, La Cascada, X Structure targets. Cost of \$300 per m includes drilling, assay, earthworks, geology	3	6	900,000
Camp (house rental, meals, janitorial, cook, etc.)	1	6	42,000
Core warehouse and logging facilities	1	6	12,000
Vehicles	1	6	36,000
Vehicle fuel and maintenance	1	6	7,000
Travel (flights, hotels, meals)	1	6	40,000
Communication	1	6	6,000

**Grand Total Stage 1 USD**

**\$1,168,000**

**Stage 2: Resource Definition Drilling of Mineralized Zones Discovered in Stage 1**

Resource definition diamond core drilling, 10,000 meters. Cost of \$300 per m includes drilling, assay, earthworks, geology	7	12	3,000,000
Detailed geochemical surveys and reconnaissance mapping, targets discovered during Stage 1 exploration	7	12	75,000
Camp (house rental, meals, janitorial, cook, etc.)	7	12	42,000
Core warehouse and logging facilities	7	12	12,000
Vehicles	7	12	36,000
Vehicle fuel and maintenance	7	12	7,000
Travel (flights, hotels, meals)	7	12	40,000
Communication	7	12	6,000

**Grand Total Stage 2 USD**

**\$3,218,000**



## **2 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 Introduction**

Resource Geosciences Incorporated (RGI) was contracted by Melior Resources Inc. (Melior) to prepare this Technical Report on the Santa Daniela, Sonora, project. This report is an update of an unpublished 15 October 2020 report originally prepared for Rancho Gold Corporation. (Rancho). RGI had been contracted by Rancho to:

1. Perform an independent evaluation of the Santa Daniela gold project in the Sahuaripa and Yecora Municipalities, Sonora, Mexico
2. Provide an opinion as to whether the project merits additional work.
3. Provide recommendations to advance the project.
4. Prepare a Technical Report in accordance with the disclosure standards of CSA National Instrument 43-101 (NI43-101).

This report has been prepared in accordance with CSA NI 43-101 standards. The report provides a summary of the geology of the project, its potential to host economic mineral deposits, and recommendations for additional work.

### **2.2 Terms of Reference**

Melior commissioned RGI to prepare a report following CSA NI43-101 guidelines for submission as a Technical Report for the Santa Daniela, Sonora property. Melior is a TSX Venture Exchange listed company focused on assessing, developing and operating resource projects. Melior's major asset is the Goondicum Ilmenite and Apatite Mine located in Queensland, Australia.

Matthew Gray, senior partner of RGI, an independent geosciences consulting firm, visited the Santa Daniela project, reviewed the available geologic data, and conducted an independent analysis to accomplish the requested task. RGI geoscientists, working under the supervision of Gray, conducted geologic mapping (senior geologist Mario Castellanos and project geologist Francisco Reyna), drillcore logging (senior geologist Rodolfo Saucedo), and geochemical interpretation and alteration mineral analyses (senior geochemist Francisco Querol).

### **2.3 Purpose of Report**

The purpose of this report is to provide an independent assessment of the Santa Daniela project and to recommend an exploration program to enhance the economic potential of the project. This report has been prepared in accordance with the disclosure and reporting requirements set forth in CSA NI43-101.

### **2.4 Sources of Information**



In the preparation of this report Dr. Gray has relied on his own observations and data independently generated by RGI geologists and geochemists, supplemented by information obtained through review of both published and unpublished documents and maps.

RGI senior partner Mario Castellanos and RGI geologists Rodolfo Saucedo, Francisco Reyna, and Francisco Querol conducted field studies at the project during the period Dec 2019 to May 2020. Castellanos and Reyna spent 23 days on site at the project conducting geologic mapping and field studies, Saucedo spent 28 days on site at the project conducting geologic logging of historical drill core, and Querol spent 14 days on site and in RGI's Hermosillo facilities conducting alteration mineral analyses on drill core and rock chip samples. In addition to Gray's own observations, and RGI generated data, sources of information regarding regional geology, mining history of the region, and topographic data, include:

- Geologic, geophysical, and assay data collected and published by the Servicio Geológico Mexicano, a Mexican Federal agency.
- Topographic and physiographic data collected and published by the Instituto Nacional de Estadística y Geografía, a Mexican Federal Agency.
- Historic drillhole geology and assay information contained in digital databases provided by Rancho and its Mexican subsidiary Minera y Metalurgia Paika SA de CV.
- Historical exploration information contained in reports provided by Rancho and its Mexican subsidiary Minera y Metalurgia Paika SA de CV.
- Mining concession information provided by Lic. Gustavo Aguilar Aranda, Legal Counsel for Rancho's Mexican subsidiaries.
- Land access agreement summaries provided by Lic. Gustavo Aguilar Aranda, Legal Counsel for Rancho's Mexican subsidiaries.
- Environmental permitting information provided by Lic. Gustavo Aguilar Aranda, Legal Counsel for Rancho's Mexican subsidiaries.
- Water rights information provided by Lic. Gustavo Aguilar Aranda, Legal Counsel for Rancho's Mexican subsidiaries.

Data that was not generated by the author or Resource Geosciences Inc. has not been independently verified, except as noted in Item 12 of this report. Where information from unverified sources is relevant to interpretations and discussions of the economic potential of the project, the source of information is explicitly mentioned.

## **2.5 Field Examination and Data Review by M. Gray.**

On 8 January 2020, Matthew D. Gray, Ph.D., C.P.G., President of RGI, conducted a field visit to the Santa Daniela Gold Project, Sonora, Mexico (Figure 2-1). Subsequent to Gray's site inspection, RGI personnel working under the direct supervision of Gray, including senior partner Mario Castellanos and RGI geologists Rodolfo Saucedo, Francisco Reyna, and Francisco Querol conducted geologic mapping, logging of historic archived core, and alteration mineral studies at the project, however no drilling,



mechanized trenching and sampling, or geophysical studies were conducted. Throughout the period of field studies by RGI at the project, Gray was independently involved in data review and analysis, and determined that as of the effective date of this report there has been no material change to the scientific and technical information about the property since that personal inspection.



**Figure 2-1. Field visit, 8 January 2020, L to R: S. Ristorcelli, J. Baltierrez, W. Pincus, M. Gray, pilot E. Castro.**

Prior to the field visit and data review conducted for the purposes of this Technical Report, Dr. Gray had been directly involved in mineral exploration programs in the Mulatos mining district but had not conducted examinations of the Santa Daniela project.



## 2.6 Definitions and Translations

AHMSA	-	Altos Hornos de México SA de CV
C	-	Centigrade
cm	-	centimeter
CONAGUA	-	Comisión Nacional de Agua (National Water Commission)
CRM	-	Consejo de Recursos Minerales (Natural Resources Council)
CSAMT	-	Controlled source audio-frequency magneto tellurics (geophysical survey method)
CUS	-	Cambio de Uso de Suelo (Land Use Change Permit)
DGM	-	Dirección General de Minas (Central Mining Department)
gpt	-	grams per tonne, equivalent to ppm
Has	-	hectares
HQ	-	diamond drill core size, 63.5 mm core diameter
IP	-	Induced polarization (geophysical survey method)
km	-	kilometer
M	-	million
MIA	-	Manifiesto de Impacto Ambiental (Environmental Impact Statement)
masl	-	meters above sea level
Melior	-	Melior Resources Incorporated
mm	-	millimeter
NA	-	North azimuth, bearing expressed as 0 to 360 degrees
NOM120	-	Norma Oficial Mexicana 120
NSR	-	Net Smelter Return
oz	-	Troy Ounce
Paika	-	Minera y Metalurgia Paika SA de CV
ppm	-	parts per million
Ranchero	-	Ranchero Gold Corporation
RGI	-	Resource Geosciences Incorporated
RGM	-	Resource Geosciences de Mexico SA de CV
RTO	-	Reverse take-over
SEMARNAT	-	Secretaría del Medio Ambiente y Recursos Naturales (Secretary of the Environment and Natural Resources)
SGM	-	Servicio Geológico Mexicano (Mexican Geologic Survey)
SMO	-	Sierra Madre Occidental
UTM	-	Universal Transverse Mercator
WGS84	-	World Geodetic System 1984 datum



### 3 RELIANCE ON OTHER EXPERTS

The authors are not experts in Mexican mining, civil, environmental or tax laws and the authors are not Qualified Persons with respect to these subjects. The QP has not reviewed the mineral tenure, environmental permits, surface ownership, water rights, nor independently verified the corporate legal status, ownership of the Project area or underlying property agreements. The QP has fully relied upon, and disclaims responsibility for, information derived from legal experts for this information through the following documents:

Letter from Lic. Gustavo Aguilar Aranda of Hermosillo, Sonora law firm Promocion Integral Minera, titled “Informacion de Concesion de Agua con Titulo 02SON152958/09FMDA18”, a summary of water rights held by Minera y Metalurgia Paika SA de CV for the Santa Daniela Project, Sonora, Mexico, dated 4 August 2020 (Appendix 1).

Letter from Lic. Gustavo Aguilar Aranda of Hermosillo, Sonora law firm Promocion Integral Minera of Hermosillo, Sonora, titled “Opinion Legal Concesiones Mineras e Informe Preventivo”, a summary of mineral rights and environmental permits held by Minera y Metalurgia Paika SA de CV for the Santa Daniela Project, Sonora, Mexico, dated 5 August 2020 (Appendix 1).

Letter from Lic. Gustavo Aguilar Aranda of Hermosillo, Sonora law firm Promocion Integral Minera of Hermosillo, Sonora, titled “Opinion Legal Concesion Minera Santa Daniela 1 Titulo 245008 y Legal Otorgamiento de Ocupacion Temporal Sobre El Ejido Mulatos”, a summary of mineral rights and surface rights held by Minera y Metalurgia Paika SA de CV for the Santa Daniela Project, Sonora, Mexico, dated 4 August 2020 (Appendix 1).

Information provided by senior management of Ranchero regarding corporate contracts and obligations derived therefrom.

Information from these letters and supporting documents has been used in Section 4 of this report.

This Technical Report and all publications, exhibits, documentation, conclusions, and other work products obtained or developed by RGI for this Technical Report are for the sole and exclusive use of Melior. However, all reports, publications, exhibits, documentation, conclusions, and other work products obtained or developed by RGI during completion of this Technical Report shall be and remain the property of RGI. Unauthorized use or reuse by third parties of reports, publications, exhibits, documentation, conclusions, and other work products obtained or developed by RGI for the purposes of this Technical Report is prohibited.

This Technical Report was prepared specifically for the purpose of complying with CSA NI 43-101 and may be distributed to third parties and published without prior consent of



RGI if the Technical Report is presented in its entirety without omissions or modifications, subject to the regulations of CSA NI43-101.



## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Area and Location

The Santa Daniela project is located in the Municipalities of Sahuaripa and Yecora, State of Sonora, near the village of Mulatos. The Maiz Azul area, the most advanced exploration target, lies 226 km E-SE of the city of Hermosillo, Sonora, 6 km S-SE of the town of Mulatos, Sonora, and 5km E of Alamos Gold's Mulatos Mine. The project area is centered at approximately 725470E 3171500N UTM WGS84 Z12N (Figure 4-1).

All geographic references in this report utilize UTM Zone 12N datum WGS84 otherwise stated.

### 4.2 Melior – Ranchero Proposed Transaction

Melior Resources Inc. entered into a non-binding letter of intent dated October 31, 2020 with Ranchero Gold Corp. with respect to a proposed transaction whereby Melior will acquire all of the issued and outstanding common shares in the capital of Ranchero (Melior Resources Inc., 2020). Ranchero holds an indirect 99.9% interest in the Santa Daniela property through its ownership of its Mexican subsidiary Paika.

The proposed transaction will constitute an arm's length reverse take-over (RTO) pursuant to the policies of the TSX Venture Exchange.

Pursuant to the proposed RTO, Melior will consolidate its outstanding share capital and acquire all of the issued and outstanding Ranchero Shares from the holders thereof in exchange for post- consolidation common shares of the Melior, such that immediately following the closing of the Proposed Transaction and such other transactions described herein, the shareholders of Melior immediately prior to closing of the Proposed Transaction, as a group, would hold no less than 12.2% of the outstanding Resulting Issuer Shares on a fully-diluted basis.

It is anticipated that prior to the closing of the proposed RTO, Pala Investments Limited is expected to convert a material portion of its principal amount US\$18,837,500 convertible indebtedness (plus the interest and fees accrued thereon) into common shares of Melior and thereafter forgive or assign any remaining indebtedness (including any interest and fees accrued thereon), and Ranchero will complete a brokered private placement of subscription receipts of Ranchero at a purchase price of at least C\$0.45 per subscription receipt for aggregate gross proceeds of up to C\$5,000,000, subject to an over-allotment option for an additional C\$1,000,000 of subscription receipts at any time up to 48 hours prior to the closing date of the concurrent financing.

Each subscription receipt will entitle the holder thereof to automatically receive, upon satisfaction of certain escrow release conditions, one Ranchero share, which shall immediately be exchanged for Resulting Issuer Shares upon completion of the proposed RTO. Ranchero intends to use the proceeds of the concurrent financing for exploration



and development of Rancho's properties in Mexico and for working capital and general corporate purposes.





### 4.3 Claims and Title

The author is not an expert in Mexican mining law. The legal standing of project claims has not been verified by Dr. Gray or RGI. The author has relied upon representations from senior management of Ranchero and legal opinion letters from Lic. Gustavo Aguilar Aranda of Hermosillo, Sonora for a review of the concession titles and legal framework, as described in Item 3 of this report and documented in Appendix 1. Lic. Aguilar Aranda verified that the concessions are in good standing and ownership of all eight concessions has been registered to Minera and Metalurgia Paika SA de CV, a 100% subsidiary of Ranchero, with the prior concession owners retaining a 2% NSR on all concessions.

Lic. Aguilar Aranda and Ranchero report that the mining concessions comprising the Santa Daniela project are not encumbered by any back in rights, payments, or other agreements beyond the 2% NSR payable to the prior concession owners.

All minerals rights in Mexico are the property of the government of Mexico and may be exploited by private entities under concessions granted by the Mexican federal government. The process was defined under the Mexican Mining Law of 1992 and excludes petroleum and nuclear resources from consideration. The Mining Law also requires that non-Mexican entities must either establish a Mexican corporation, or partner with a Mexican entity.

Under current Mexican mining law, amended April 29, 2005, the Direccion General de Minas ('DGM') grants concessions for a period of 50 years, provided the concession is maintained in good standing. There is no distinction between mineral exploration and exploitation concessions. As part of the requirements to maintain a concession in good standing, bi-annual fees must be paid based upon a per-hectare escalating fee, work expenditures must be incurred in amounts determined on the basis of concession size and age, and applicable environmental regulations must be respected.

The Santa Daniela project consists of eight concessions covering in aggregate 22,266.9159 Has.

Concession Title 228792 was originally staked and titled to Aurelio Valdespino Partida and Ernesto Lopez Montes. Title to this concession was transferred to JLL Grupo Mulatos de Sonora on Jan 26, 2012. On Aug 16, 2016, this concession was subdivided into 6 new concessions, Titles 245008, 245009, 245010, 245011, 245012 and 245013. These six titles were transferred to Minera and Metalurgia Paika on Feb 19, 2020 with JLL Grupo Mulatos de Sonora retaining a 2% NSR on all concessions.

The STA DANIELA (Title 225783) and STA. DANIELA (Title 225784) concessions were originally staked and titled to Ernesto Lopez Montes, and were transferred to SAH Exploraciones on August 30, 2011. These two concessions were then transferred to Minera y Metalurgia Paika on February 19, 2020 . with SAH Exploraciones retaining a 2% NSR on all concessions.



Concession information is summarized in Table 4-1, and the concessions are shown in Figure 4-2. Concession titles are included as Appendix 2.

**Table 4-1. Listing of Mining Concessions**

<b>Concession Name</b>	<b>Title Number</b>	<b>Titled to</b>	<b>Expediente Number</b>	<b>Hectares</b>	<b>Expiration Date</b>
STA. DANIELA	225783	Ernesto Lopez Montes	082/29717	97.0000	October 24, 2055
STA. DANIELA	225784	Ernesto Lopez Montes	082/29718	100.0000	October 24, 2055
STA. DANIELA 1	245008	JLL Grupo Mulatos de Sonora SA de CV	4/003-00551	2301.2237	February 1, 2057
STA. DANIELA 2	245009	JLL Grupo Mulatos de Sonora SA de CV	4/003-00551	2892.2937	February 1, 2057
STA. DANIELA 3	245010	JLL Grupo Mulatos de Sonora SA de CV	4/003-00551	3947.2935	February 1, 2057
STA. DANIELA 4	245011	JLL Grupo Mulatos de Sonora SA de CV	4/003-00551	4770.4305	February 1, 2057
STA. DANIELA 5	245012	JLL Grupo Mulatos de Sonora SA de CV	4/003-00551	4912.5854	February 1, 2057
STA. DANIELA 6	245013	JLL Grupo Mulatos de Sonora SA de CV	4/003-00551	3246.0891	February 1, 2057

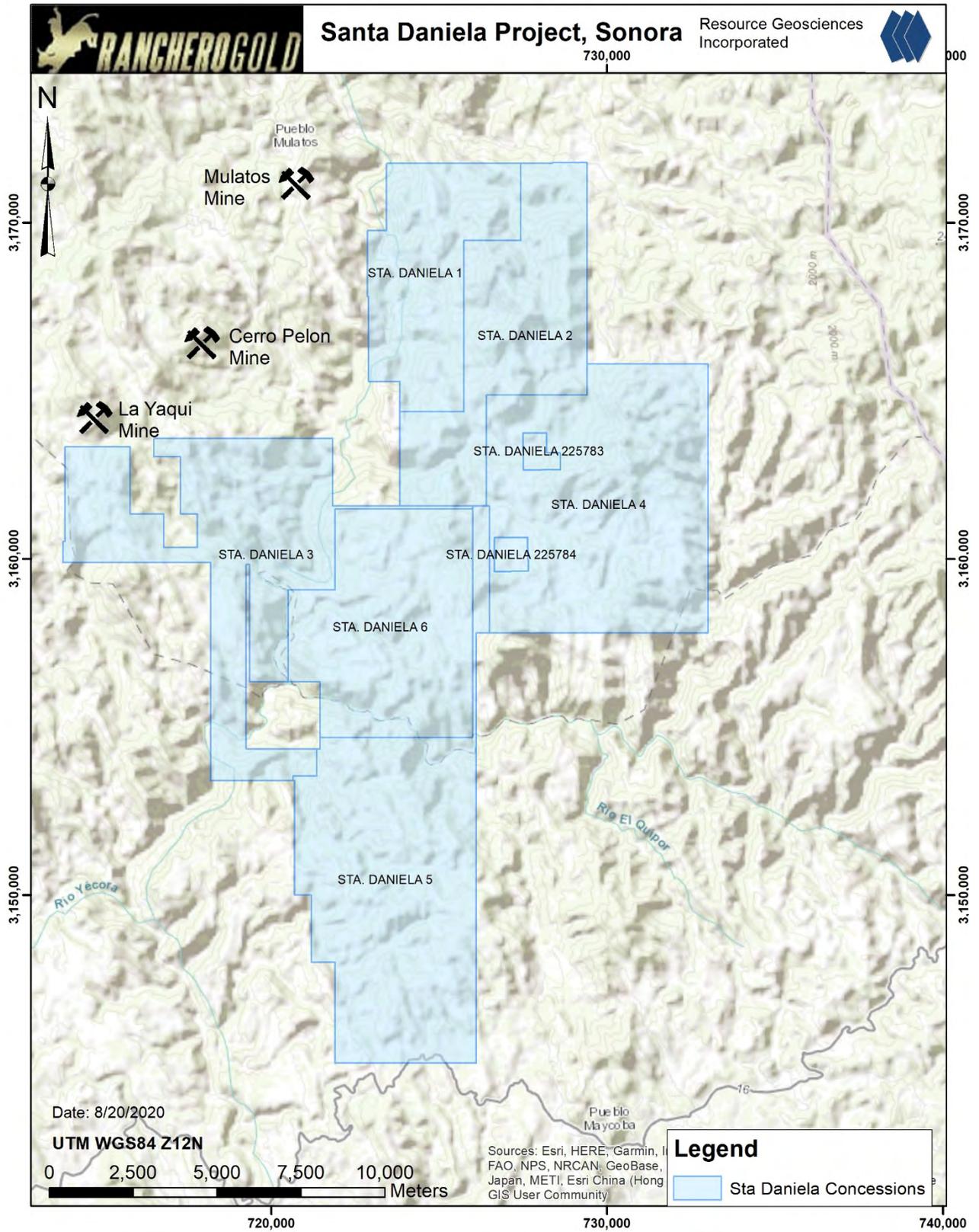


Figure 4-2. Mining concessions, Santa Daniela Project.



#### 4.4 Surface Rights

The author is not an expert in Mexican surface rights or contract law. The legal standing of project surface rights has not been verified by Dr. Gray or RGI. The author has relied upon Rancho's legal counsel in Mexico, Lic. Gustavo Aguilar Aranda for a review of the project surface rights as discussed in Item 3 of this report and documented in Appendix 1.

Surface rights for the project have been investigated only for the northwest portion of the claim block, where exploration activities have taken place. Portions of the property are owned by the Mulatos and Tesoripa Ejidos and by private ranches. Ejidos are Federally defined agrarian communities with cooperative land rights. Surface rights at the Maiz Azul target area are owned by the Mulatos Ejido and Rancho has surface rights to the land which includes the Maiz Azul area at Santa Daniela by means of a Temporary Occupation agreement covering 307.7704 ha between the Mulatos Ejido and JLL Grupo Mulatos de Sonora SA de CV (Appendix 3). Upon transference of mineral concession titles from JLL to Paika, the Temporary Occupation permit rights and obligations were transferred to Paika, Rancho's Mexican subsidiary. Prior operator AHMSA conducted exploration drilling on private ranch lands of the Rancho Rincon Cerro del Metate and Rancho Mesas Coloradas.

Areas for which Rancho controls surface rights, and surface ownership as presently investigated and documented, are shown in Figure 4-3.

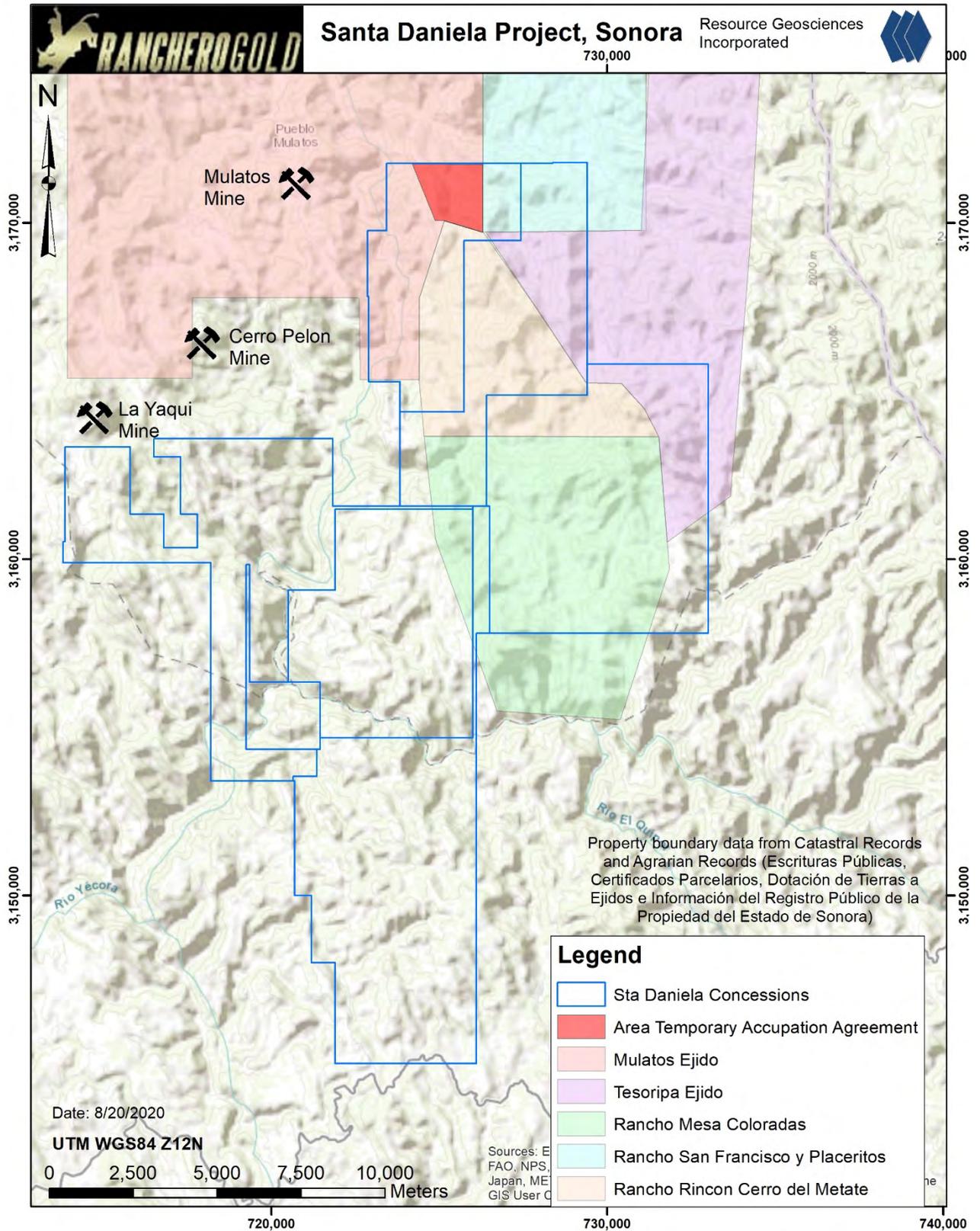


Figure 4-3. Surface rights in project area.



## 4.5 Environmental Liability

No environmental liabilities are apparent. The property does not contain active or historic mines or prospects beyond the level of small artisanal workings. There are no plant facilities present within the project area, nor are tailings piles present. All exploration work has been carried out by prior operators in accordance with Mexican environmental standards.

## 4.6 Permits

### 4.6.1 Environmental

The author is not an expert in Mexican environmental law. The legal standing and validity of project environmental permits has not been verified by Dr. Gray or RGI. The author has relied upon Lic. Gustavo Aguilar Aranda for a summary review of the project environmental permits as discussed in Item 3 of this report and documented in Appendix 1.

The Ley de Desarrollo Forestal Sustentable (Sustainable Development Forest Law) and the Ley General del Equilibrio Ecológico y Protección al Ambiente (General Law of Ecologic Equilibrium and Environmental Protection) regulate all direct exploration activities carried out at Santa Daniela (reverse circulation drilling, core drilling, trenching, road construction, etc.). Surface disturbances caused by exploration activities require a Cambio de Uso de Suelo (CUS, Land Use Change) authorization and approval of an Environmental Impact Assessment (MIA).

Exploration and mining activities in Mexico are subject to control by the Secretaria del Medio Ambiente y Recursos Naturales (Secretary of the Environment and Natural Resources), known by its acronym SEMARNAT. The Santa Daniela project is not included within any specially protected, Federally designated ecological zones, therefore basic exploration activities are regulated under Norma Oficial Mexicana NOM-120-ECOL-2011. NOM120 allows for activities including mapping, geochemical sampling, geophysical surveys, mechanized trenching, road building, and drilling. Most exploration activities can be permitted utilizing NOM120.

On 10 May 2019, SEMARNAT, under the guidelines of NOM120, issued to JLL Grupo Mulatos de Sonora SA de CV, authorization to construct 208 drillpads in the Maiz Azul area on a 100 x 100m grid pattern, via Oficio DS-SG-UGA-IA-0239/2019 (Appendix 4). Upon transference of mineral concession titles to Paika, permit rights and obligations of the SEMARNAT permit were transferred to Paika.

A review of environmental compliance and permitting issues was not within the scope of the present study. Lic. Aguilar Aranda and Ranchero report that the environmental permits currently granted to the project allow for basic exploration work including geologic mapping, surface rock chip sampling, and drilling.



#### 4.6.2 Water

The author is not an expert in Mexican water law. The legal standing and validity of project water rights has not been verified by Dr. Gray or RGI. The author has relied upon Lic. Gustavo Aguilar Aranda for a summary review of the project water rights as discussed in Item 3 of this report and documented in Appendix 1.

The National Water Law regulates all water use in Mexico under the responsibility of Comisión Nacional del Agua (CONAGUA). Applications are submitted to CONAGUA indicating the annual water needs for mining activities and the source of water to be used. CONAGUA grants water concessions according to stipulated water availability in the source area.

On 4 July 2018 CONAGUA ceded to JLL Grupo Mulatos de Sonora SA de CV an industrial use water right for 3,000,000 cubic meters per annum, title 02SON152958/09FMDA18 (Appendix 5). On 17 July 2020 JLL executed a contract with Paika under which these water rights were transferred to Paika.

### 4.7 Access, Title, and Permit Risks

#### 4.7.1 Access Risks

The project has had a productive relationship with the surface owners and no extraordinary risks to project access were discerned. A valid surface access agreement allows Rancho to explore the property.

#### 4.7.2 Title Risks

Rancho advises that they have met legal requirements to maintain in good standing mining concession titles. Conditional upon continued compliance with annual requirements, no risk to validity of title was discerned.

#### 4.7.3 Permit Risks

Prior operators have been compliant with Mexican environmental regulations and conditional upon continued compliance, permits for normal exploration activities are expected to be readily attainable. The project is in an active mining district where both Alamos Gold and Agnico Eagle are operating large open pit gold mines. A valid surface rights agreement that allows exploration and development of the most advanced targets on the property is in effect. No extraordinary permitting risks were discerned.



## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY**

### **5.1 Accessibility**

The property is located approximately 226 km E-SE of the city of Hermosillo, Sonora, 6 km S-SE of the town of Mulatos, Sonora, and 5km E of Alamos Gold's Mulatos Mine. The project area is centered at approximately 725470E 3171500N UTM WGS84 Z12N. The project is in the eastern portion of the State of Sonora, Mexico, in close proximity to the neighboring State of Chihuahua (Figure 5-1). Access is by road from Hermosillo and requires approximately 7 hours of travel time. The first 150 kilometers is via a paved road to the village of Arivechi located 15 kilometers southeast of Sahuaripa. The remaining distance is on a gravel and dirt roads, well maintained up to the Mulatos mine. Alternatively, access can be gained by entering through Yecora off of the Hermosillo-Chihuahua highway.





## 5.2 Physiography, Climate and Vegetation

The property is in the Sierra Madre Mountains of eastern Sonora. The topography consists of long ridges separated by steep V-shaped valleys. Elevations range from 940 masl to over 2080 masl. Areas of low relief are scarce, thus suitable locations for mill sites, leach pads, waste dumps, and other mine related infrastructure will require special engineering considerations, similar to that of other active mines in the region.

The climate in the area is semi-arid with variable seasonal temperatures typically ranging from 35°C in the summer and -2°C in the winter, with occasional frost and snow at higher elevations. The area experiences torrential rainfall occurring from July to September and the driest months are March to May. Exploration activities may be conducted year round, although summer rains may cause occasional closings of river and arroyo crossings.

Vegetation in the area is varied. Vegetation at higher elevations consists of open pine forests while oak and cedar forests predominate at lower elevations (Figure 5-2). Poor soils and inconsistent precipitation limit the viability of farming in the area.



Figure 5-2. View of typical topography and vegetation at Santa Daniela, looking north from drillpad MH18-01, across Arroyo Maiz Azul.

## 5.3 Local Resources and Infrastructure

The property is located near the town of Mulatos, which offers little infrastructure beyond rural telephone service and small Federally subsidized grocery stores. Most basic services are available in Sahuaripa, and to a lesser degree in Yecora. The population of the district is estimated to be a few thousand with most of the inhabitants involved in small mining operations, ranching, and/or subsistence farming. Like most areas of the Sierra



Madre, production and transport of marijuana and opium poppy forms an important but unquantified part of the local economy. Organized crime cartels operate with impunity in the region, and illicit activities have occasionally adversely affected exploration in the region and operation at the nearby Mulatos and La India gold mines. An adequate supply of labor for mining operations can be drawn from the region.

The nearest international airport is located at Hermosillo. An unpaved airstrip for light aircraft exists at the Mulatos mine. A paved airstrip without services at Yecora is suitable for light aircraft.

The Federally owned and operated electric transmission grid extends as far as Yecora.



## 6 HISTORY

### 6.1 Prior Ownership

The mining concessions comprising the Santa Daniela project were staked to private persons and subsequently transferred to Mexican corporations and ultimately to Paika, as described in Section 4.3 of this report.

### 6.2 Prior Exploration

In 2011-12 JLL Grupo Mulatos de Sonora conducted rock chip sampling at the Maíz Azul area and other areas were reviewed at a reconnaissance level of investigation. From 2013 to 2019 exploration was conducted by Altos Hornos de Mexico S.A. (AHMSA), though a joint venture with JLL. AHMSA's exploration continued until 2019. Exploration conducted by Rancho is discussed in Section 9 of this report.

#### 6.2.1 Altos Hornos de México S.A de C.V – JLL Joint Venture.

In 2013 JLL formed a joint venture with Altos Hornos de Mexico S.A. (AHMSA) which continued until 2019. As operator of the project AHMSA conducted geophysical surveys and diamond drilling programs. The work completed by AHMSA is incompletely documented, but some assay certificates, geophysical survey reports, and the entirety of the drill core have been preserved. The description of AHMSA's historical exploration activities presented in this report is not definitive but serves to provide a general overview of AHMSA's work. Rancho reports that during 2018 and 2019, when the joint venture ended, the partners had spent US\$ 1.3 million on exploration as summarized in Table 6-1.

**Table 6-1. Historic exploration expenditures.**

<b>Activity</b>	<b>2018</b>	<b>2019</b>
Drilling	\$764,537	\$302,397
Camp Operation	\$46,390	\$9,350
Geology	\$7,215	\$189,661
Total	\$818,142	\$501,407

**Grand Total**                      **\$1,319,549**

#### 6.2.1.1 *Rock Chip Sampling*

AHMSA conducted rock chip sampling at the Maiz Azul target and identified gold anomalous volcanic rocks in outcrops along the Arroyo Maiz Azul and its tributaries (Figure 6-1).

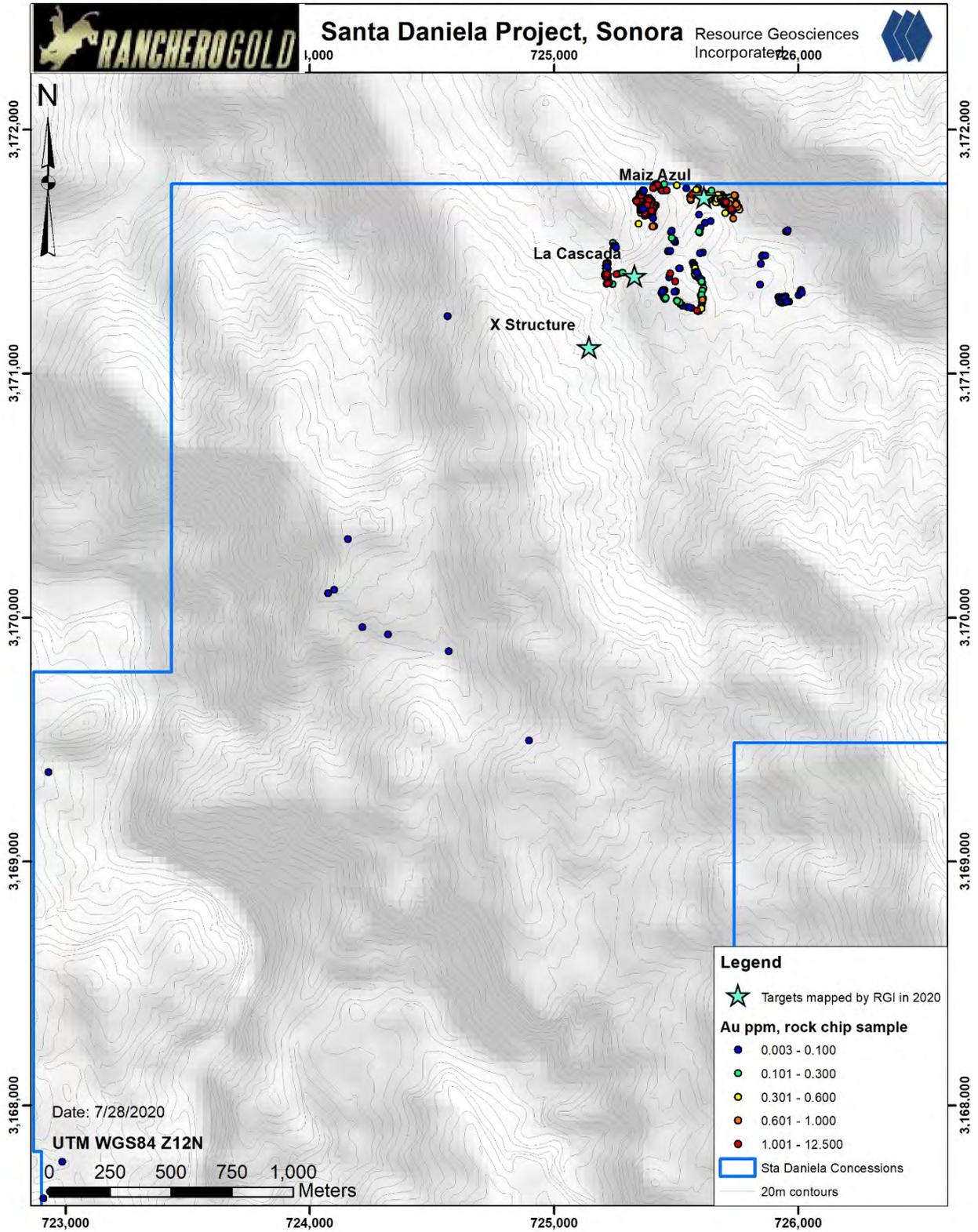


Figure 6-1. Historical (pre-2020) rock chip gold sampling results, plotted on shaded topographic base, 20m contour interval.



### 6.2.1.2 Geophysical Surveys

AHMSA recognized that much of the concession was covered by unmineralized Oligocene ignimbrites that may conceal mineralized zones in the underlying Eocene volcanic rocks. To explore beneath the barren volcanic cover, AHMSA selected areas for controlled source audio-frequency magnetic tellurics (CSAMT) surveys. Areas selected were based on review of public domain magnetic surveys where: AHMSA interpreted proximity to concealed intrusives; Oligocene volcanic cover was interpreted to be relatively thin; and it seems most importantly, where roads provided ready access to the area (Lopez, 2017). A total of 17,000 linear meters of CSAMT surveys were conducted in 5 areas (Figure 6-2):

1. Maiz Azul, 2 lines, 4150m
2. El Rincon, 5 lines, 5650m
3. El Potrerito, 1 line, 1100m
4. La Mojonera, 2 lines, 3300m
5. Los Redondeados, 2 lines, 2800m

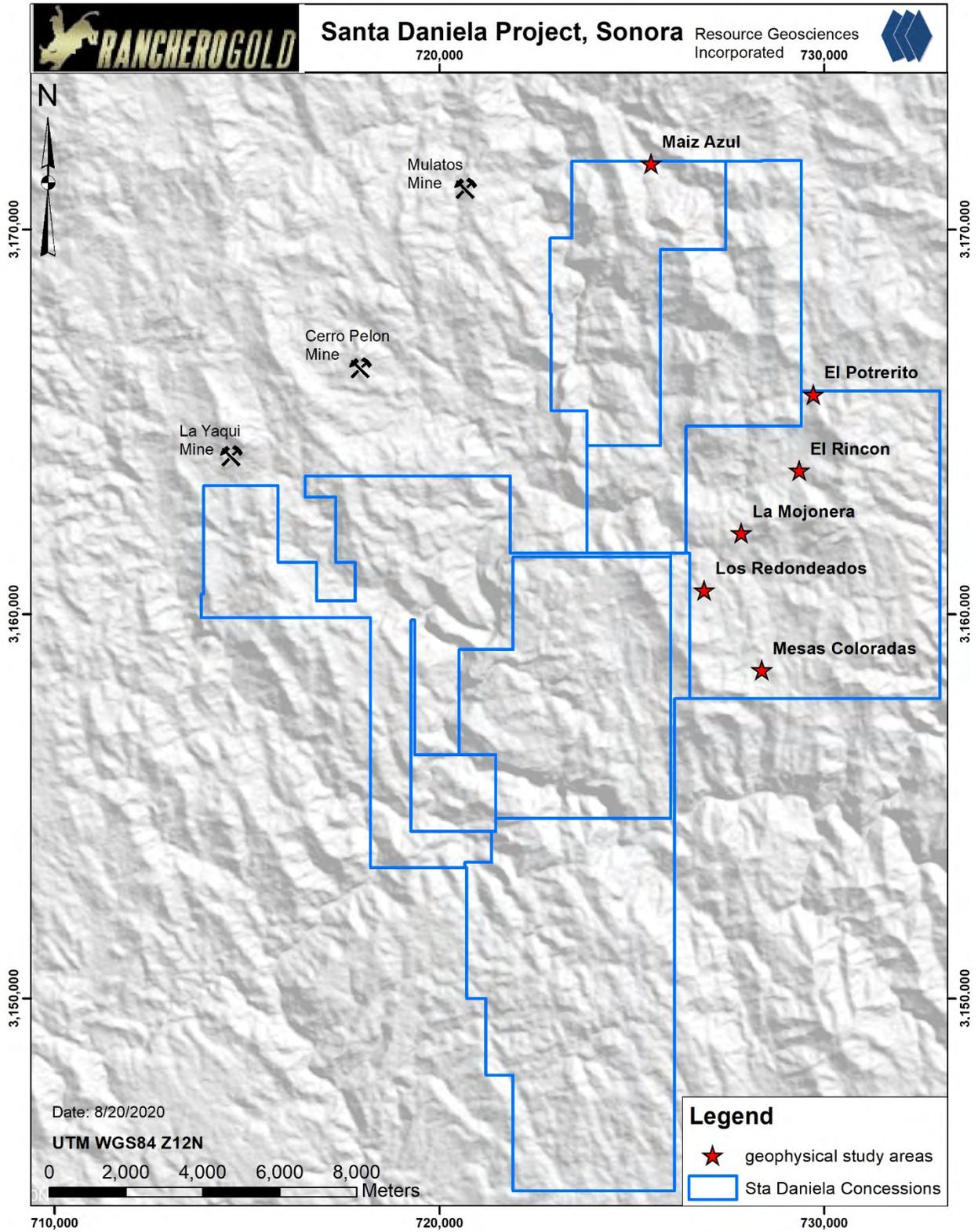


Figure 6-2. Geophysical survey areas plotted on shaded relief map.



Results of the CSAMT surveys were similar in all areas surveyed in that resistive units at depth (500m or more below surface) were interpreted as possible felsic intrusions and near surface zones of lower resistivity were interpreted as possible zones of hydrothermal alteration (Minera del Norte, 2018). None of the areas of interpreted hydrothermal alteration were tested by drilling. At El Rincon, the CSAMT survey was conducted after drilling was completed, as an opportunistic use of the crew and equipment while they were on standby waiting for access permits into other target areas.

An Induced Polarization (IP) survey comprising 2 lines and 2700 linear meters was completed at Mesas Coloradas (Lopez, 2017), however documentation of the survey and results are not available for review, but the drilling at Mesa Coloradas was reportedly designed to test resistivity anomalies, presumably defined by the IP survey, at depths of 300m and greater, beneath a veneer of unmineralized Oligocene volcanic strata (Lopez, 2017).

A ground magnetometry survey was completed at Maiz Azul, after completion of the drill program (Figure 6-3).

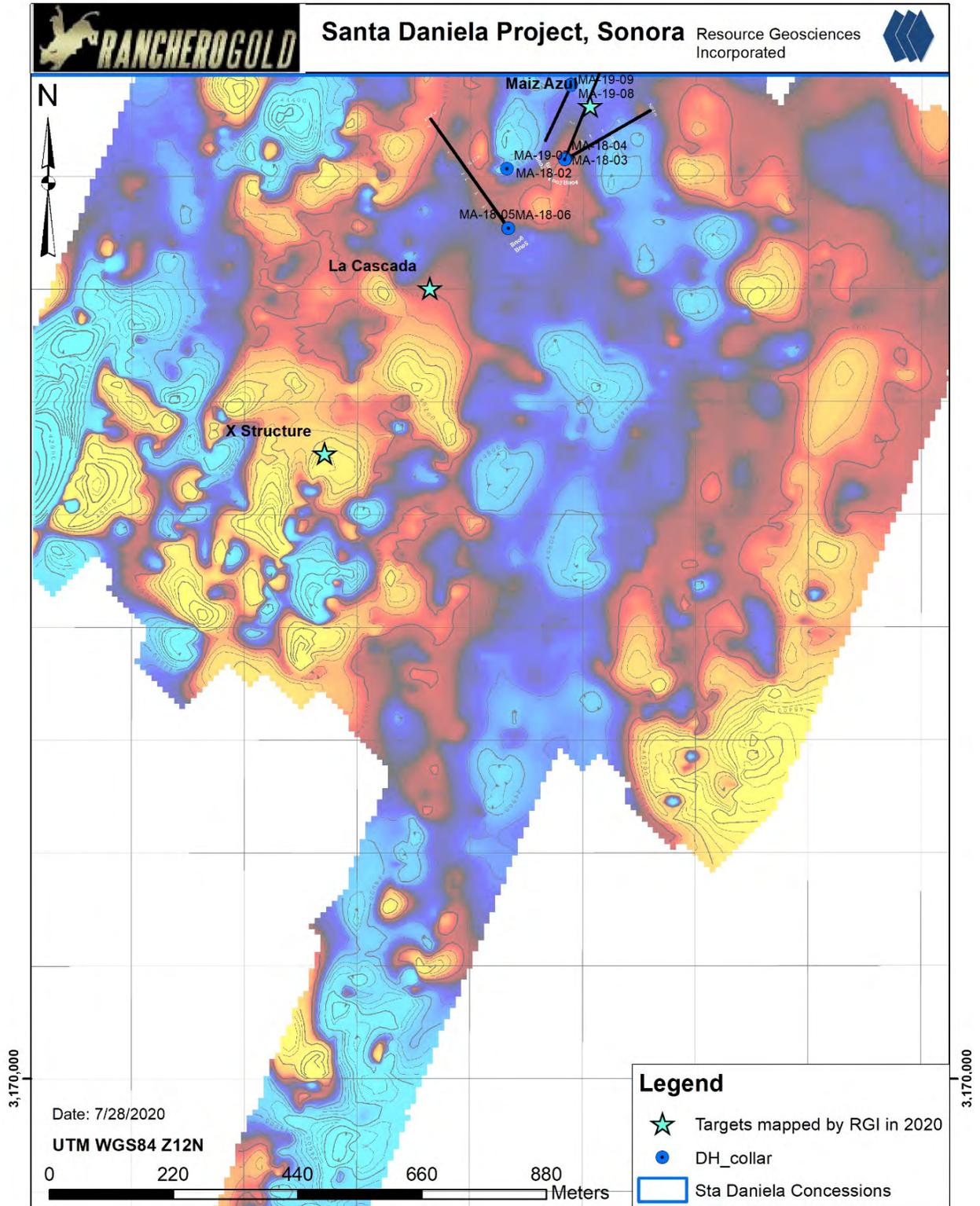


Figure 6-3. Ground magnetic survey total magnetic intensity, reduced to pole.



### 6.2.1.3 Diamond Core Drilling

AHMSA conducted drilling in 2016 at Mesas Coloradas, in 2017 at Mesas Coloradas and El Rincon, and in 2018 and 2019 at Maiz Azul, as summarized in Table 6-2. A total of 3,380.05 m of HQ diameter diamond core drilling was reported. No assay certificates for samples from the 2016 and 2017 drilling were in the project archive, but Excel tables indicate that portions of the 2016 drillholes at Mesa Coloradas were assayed, seemingly by an in-house analytical laboratory of AHMSA. Drillcore from the AHMSA program is well preserved and stored at Paika's Yecora field office (Figure 6-4). Logs for the AHMSA drilling are in the project archive, and for this study the Maiz Azul drillholes were re-logged, as described in Section 9 of this report. Locations of historical drillholes and the project claim boundaries are summarized in Figure 6-5. A detailed map of the Maiz Azul drillholes and the rock chip gold anomalies they tested is presented as Figure 6-6.

**Table 6-2. Historical drillholes**

Drillhole ID	Area	UTM Easting WGS94	UTM Northing WGS84	Elevation masl	Azimuth	Dip	Total Depth m	Assay Certificate	Lab
SD-16-01	Mesa Colorada	728290.845	3158592.536	1575.500	267.686	-50	500.75	no	AHMSA?
SD-16-02	Mesa Colorada	728291.750	3158592.558	1575.447	267.686	-75	300.2	no	AHMSA?
SD-17-03	El Rincon	729200.604	3164006.654	1503.707	0	-90	214.25	no assays in data set	
SD-17-04	Mesa Colorada	728466.699	3158599.826	1572.967	270	-50	273.3	no assays in data set	
SD-17-05	El Rincon	729515.779	3163459.880	1600.199	0	-50	177.9	no assays in data set	
MA-18-01	Maiz Azul	725570.114	3171629.522	1277.659	60	-55	300.15	yes	ALS
MA-18-02	Maiz Azul	725569.628	3171629.239	1277.623	60	-66	222.20	yes	ALS
MA-18-03	Maiz Azul	725568.343	3171629.849	1277.535	22	-50	250.60	yes	ALS
MA-18-04	Maiz Azul	725568.027	3171628.652	1277.521	0	-90	405.65	no	ALS
MA-18-05	Maiz Azul	725468.005	3171506.701	1304.703	324.6259	-55	414.80	yes	ALS
MA-18-06	Maiz Azul	725468.311	3171506.270	1304.773	324.6259	-65	320.25	no	ALS
MA-19-07	Maiz Azul	725,466.00	3,171,612.00	1,263	0	-90	183.00	no	ALS
MA-19-08	Maiz Azul	725,580.00	3,171,761.00	1,213	0	-90	183.00	no	ALS
MA-19-09	Maiz Azul	725,579.00	3,171,760.00	1,214	205	-50	167.75	no	ALS



**Figure 6-4. RGI Geologist Rodolfo Saucedo examining AHMSA drill core, Paika's Yecora field office.**

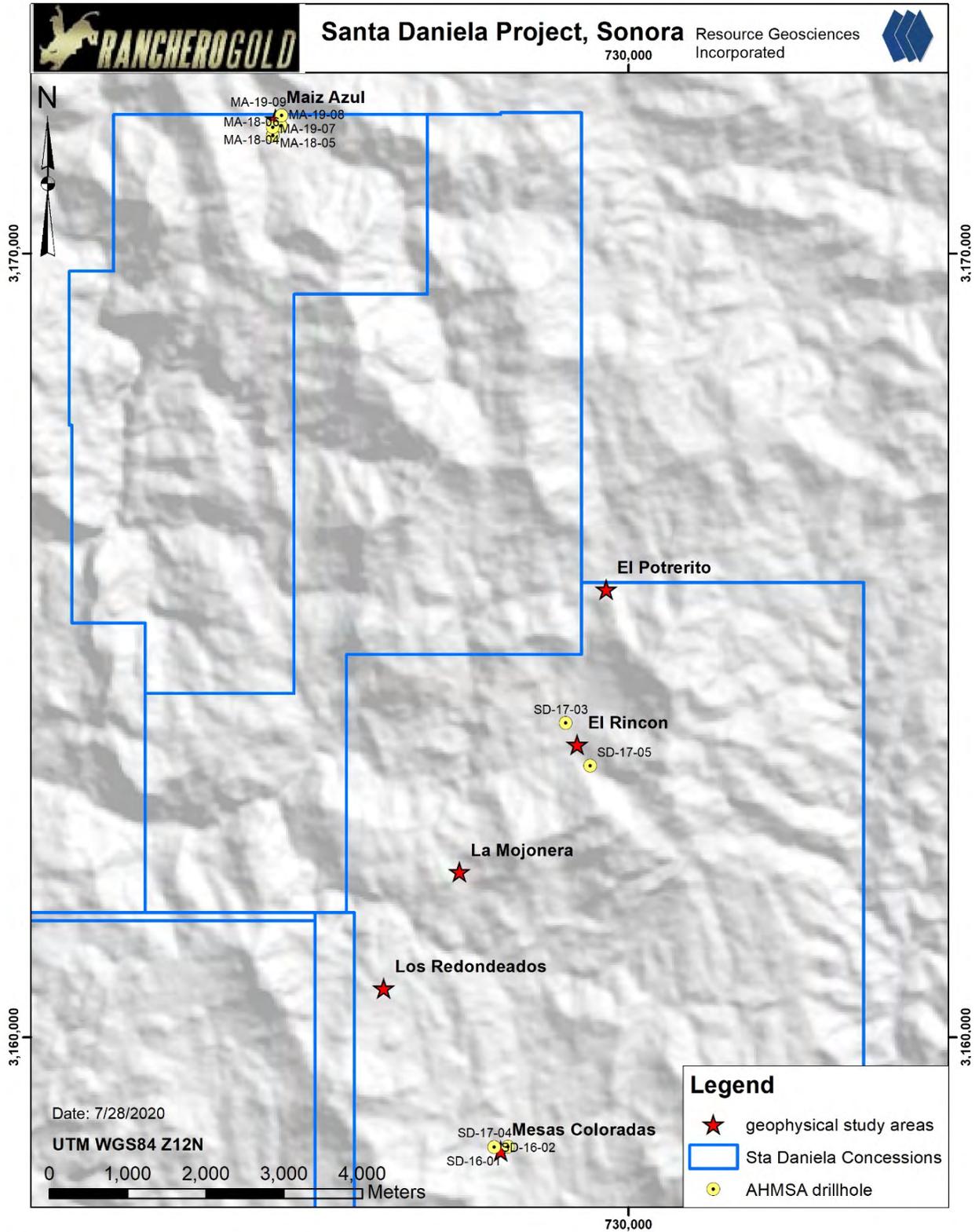


Figure 6-5. Historical drillhole locations and project claim boundaries plotted on shaded relief map.

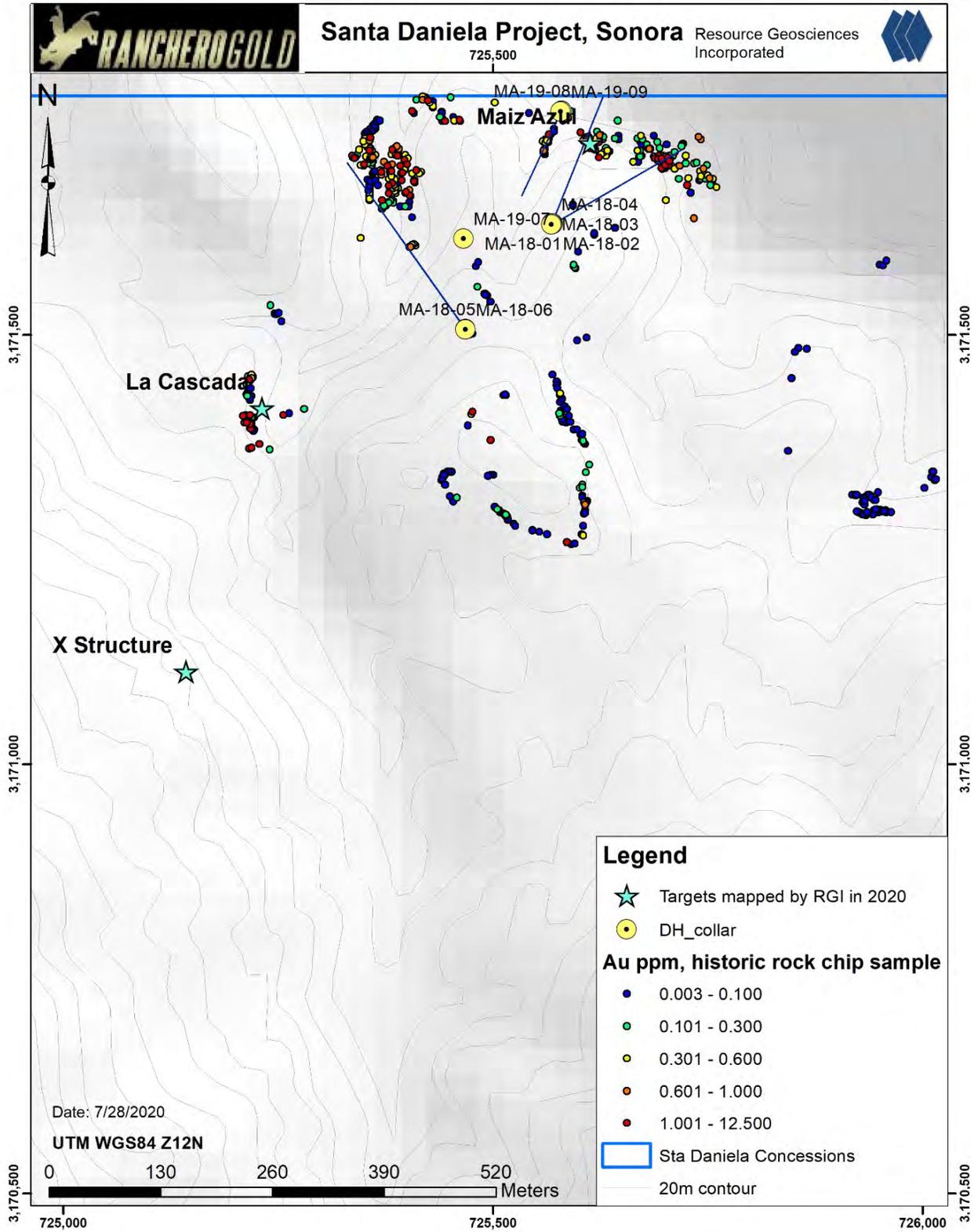


Figure 6-6. Historical drilling and rock chip Au at Maiz Azul, plotted on shaded topographic base, 20m contour interval).



The rationale for drillsite and drillhole orientation selection is not documented in the historic reports, but it appears that drillholes MA-18-01 through 04 and MA-18-08 and 09 were drilled to test the rock chip gold anomaly defined by outcrop sampling along the Arroyo Maiz Azul. Drillholes MA-18-08 and 09 were collared in the footwall of the mineralized structural zone thus had zero possibilities of intersecting the zone. Holes MA18-01 through 04 were collared in the hangingwall and all intersected the zone.

Drillholes MA-18-05 and 06 appear to have been drilled to test a rock chip assay gold anomaly, at lower elevation and west of their collars, but the orientation of this zone is undetermined and structures mapped on surface dip west, thus holes 05 and 06 may have drilled the footwall of the outcropping zone. The target tested by drillhole MH-18-07, a vertical hole drilled between rock chip gold anomalies, is unknown.

Locked pdf file assay certificates from ALS were available for some of the Maiz Azul drillholes and Excel files with assay data were available for all. Excel files with AHMSA logos containing assay data were available for 2 of the Mesas Coloradas drillholes. Sampling of drill core was not continuous and in many cases drill core intervals that returned anomalous gold assays are “orphan intercepts” with drill core above and below the mineralized interval unsampled. Using this incomplete information, a table of significant intercepts above a 0.25 gpt Au cutoff for the historical drilling was compiled. Results are summarized as Table 6-3 and are presented for historical context. If a 0.1 gpt Au cutoff and minimum composite assay is considered, and a maximum of 1m of continuous internal interval below cutoff is allowed, an intercept of 37m @ 1.56 gpt Au was returned from drillhole MA-18-03 from 71.90 to 108.90m. The drillhole cut the interpreted mineralized zone orthogonally and the true width is interpreted to be approximately 37m. The author has no reason to doubt the validity of the reported historic results, but not all drill collars can be field verified, downhole survey data reported for drillholes is ambiguous, and in some cases self-contradictory, and the details of the drilling program are not documented. **The QA QC protocols, drilling techniques, and sampling methods used by AHMSA in their diamond drill programs are not documented and are unknown to the author. The 2016 through 2019 drillhole results are historical in nature, have not been verified by the author, and should not be relied upon. Melior is not treating the historical drillhole data as current data,** however the author has no reason to doubt the validity of the reported historic results, and the author considers them adequate for the purposes of this report, including the data validation recommended in Section 26 of this report.



**Table 6-3. Historical drillhole intercepts\*.**

Drillhole	From m	To m	Length	Au ppm	Ag ppm
MA-18-01	114.35	120.05	5.70	1.64	2.11
MA-18-02	115.55	120.65	5.10	0.75	1.62
MA-18-02	121.70	128.90	7.20	0.47	1.51
MA-18-03	84.00	88.05	4.05	0.75	1.44
MA-18-03	97.30	108.90	11.60	4.23	9.37
MA-18-04	116.70	120.80	4.10	1.24	0.99
MA-18-04	217.15	221.15	4.00	0.32	2.23

\*Intercepts reported according to the following criteria: Minimum composite length 3m; minimum composite grade 0.25 gpt Au; cutoff grade for composite interval 0.25 gpt Au; allowable internal waste below cutoff grade, 1m maximum.

### **6.3 Historical Metallurgical Studies**

Neither Melior, Ranchero, nor RGI or Dr. Gray have conducted metallurgical studies of Santa Daniela mineralization.

### **6.4 Historical Resource Estimates**

There are no known no recorded Mineral Resource estimates for the property.

### **6.5 Prior Production**

There has been no recorded mineral production from the property.

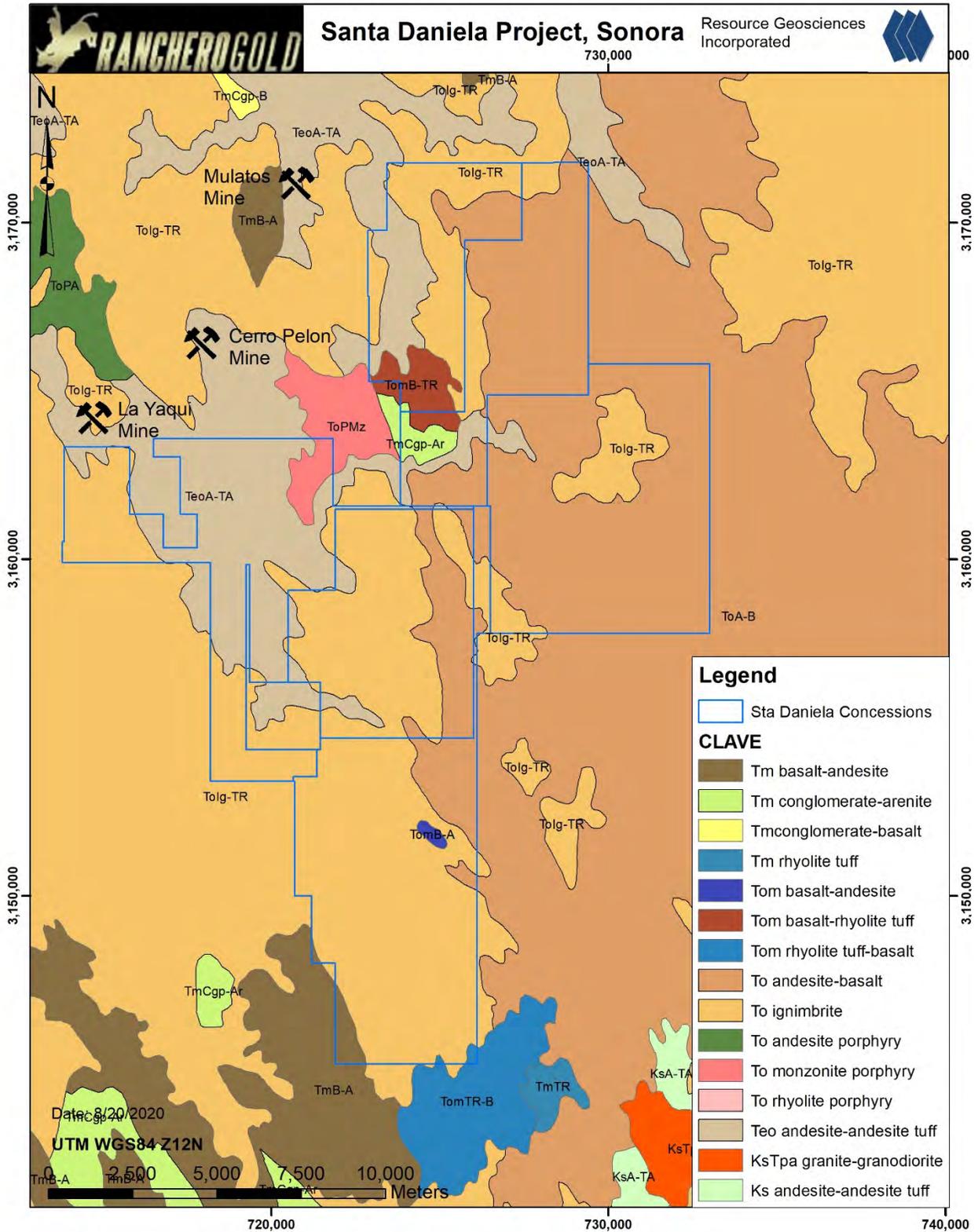


## 7 GEOLOGICAL SETTING

### 7.1 Regional Geology

The Santa Daniela project lies within the Sierra Madre Occidental (SMO) province, a regionally extensive Tertiary volcanic field which extends southeast from the United States-Mexico border to central Mexico. The total thickness of the volcanic sequence is approximately 2km, and it rests upon Mesozoic clastic and calcareous sedimentary rock. The volcanic field is comprised of two distinct volcanic sequences, an older andesitic and dacitic series, and a younger, pyroclastic dominated rhyolitic series. The traditional nomenclature refers to these as the Serie Volcanica Inferior (Lower Series) and Serie Volcanica Superior (Upper Series). The Lower Series is approximately 1km thick and is dominated by Paleocene and Eocene andesitic lavas and pyroclastic deposits, with interbedded volcanoclastic strata. Silicic volcanic units are present but are a minor component. The volcanic strata of the Lower Series are cut by calc-alkaline intrusives. The Upper Series unconformably overlies the Lower Series with erosional disconformity and comprises a 1km thick sequence dominated by Oligocene and early-Miocene dacitic and rhyolitic pyroclastic strata and volcanoclastic strata. Most significant metal occurrences in the SMO are hosted by rocks of the Lower Series or the underlying Mesozoic strata.

The Santa Daniela project lies within the western limits of the SMO in an area dominated by outcrops of andesitic to dacitic tuffs that were intruded by granodiorite and diorite stocks, and overlain by rhyolitic tuffs, basaltic-andesite lavas, and basin-filling late conglomerates (Figure 7-1). These rocks lie within a northwest-trending zone of Miocene extension that disrupted the regional stratigraphy along N-NW striking normal faults causing large-scale rotation of blocks with predominantly east-northeast inclinations (Servicio Geologico Mexicano, 2000). Incised fluvial canyons have cut the uppermost strata and expose the Lower Series volcanic strata.





## 7.2 Local Geology

### 7.2.1 General Geology

The Santa Daniela project area is underlain by the Lower Series volcanic sequence comprised of Paleocene andesitic and dacitic volcanic rocks interbedded with epiclastic rocks of similar composition, capped by Upper Series Oligocene ignimbrites.

Detailed mapping has been conducted only in the Maiz Azul area (Figure 7-2). Mapping was completed in the first semester of 2020 by Resource Geosciences Inc., led by Senior Geologist Mario Castellanos. The geologic descriptions in this section are based upon this mapping and observations of outcrop and drillcore made by the author. The dominant Lower Series rock units are crystal tuffs, ash fall tuffs, andesitic flows, andesitic porphyry, and mafic dikes. All these rocks show characteristics of alteration indicating that they are pre-mineral rocks.

### 7.2.2 Maiz Azul Area Lithology Descriptions

The description of Maiz Azul area rock types is based upon mapping conducted by Resource Geosciences de Mexico SA de CV (Castellanos, 2020) (Castellanos and Reyna, 2020). Lithologies mapped are herein described.

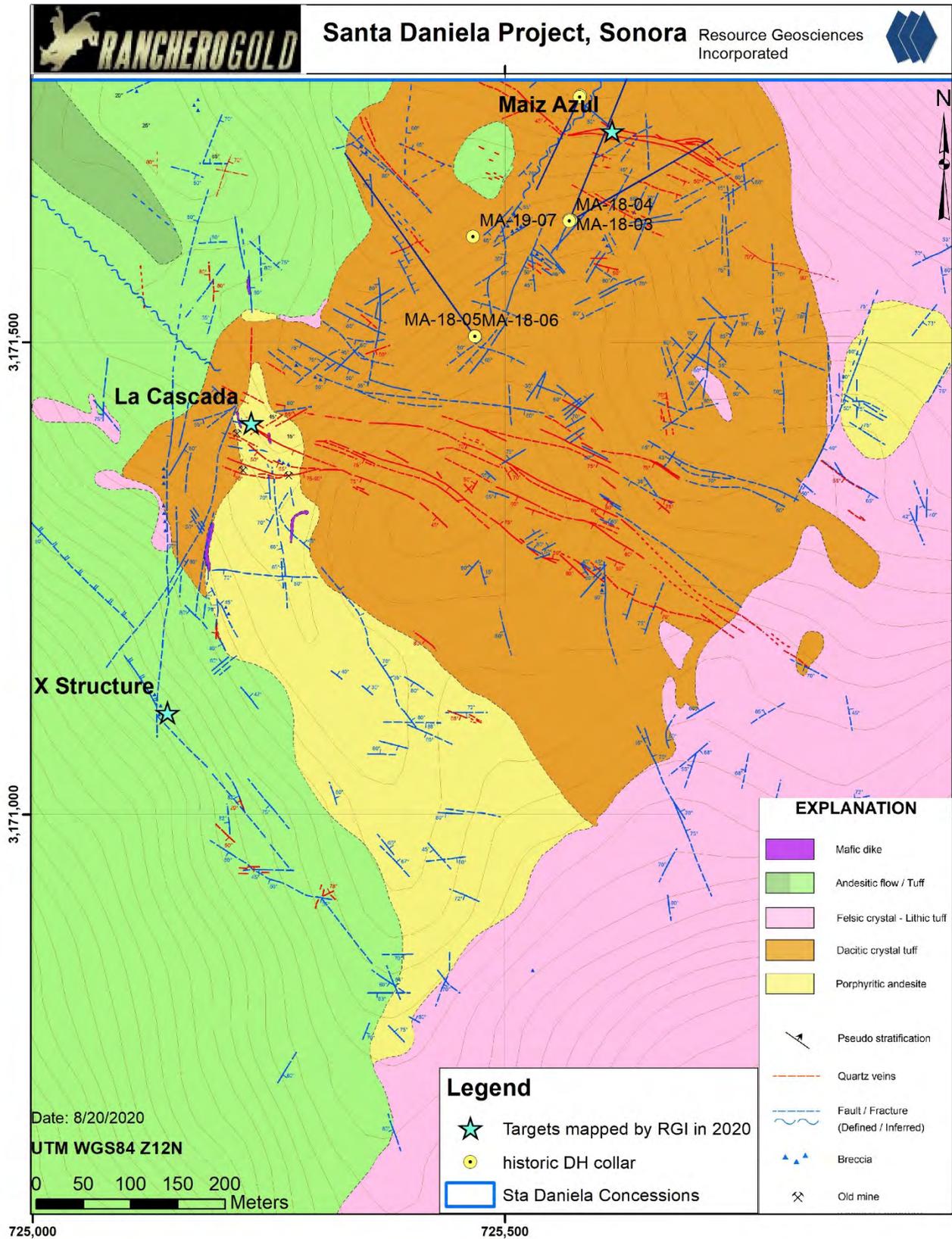


Figure 7-2. Maiz Azul Area geologic map (Castellanos and Reyna, 2020).



### 7.2.2.1 Mafic Dikes

Dark green, fine matrix, porphyritic texture defined by plagioclase phenocrysts up to 0.5 cm long (Figure 7-3), moderately to strongly magnetic. Dikes are narrow, generally less than 1 meter thick, usually localized by N-S faults.



Figure 7-3. Hand samples of mafic dikes.

### 7.2.2.2 Andesitic Tuff

This unit crops out throughout the northern and western part of the area (Figure 7-2). Generally a fine grained rock with fine grained matrix hosting plagioclase and hornblende crystals, often with layering or pseudo stratification in thin layers, generally less than 10 cm (Figure 7-4). Locally a compact massive rock. In the northwest portion of the mapped area andesitic flows with abundant vesicles were mapped and included in the same map unit. Color varies from reddish brown to purple. This unit is weakly magnetic and is the stratigraphically highest unit mapped. It is up to 200 meters thick and discordantly overlies felsic tuff.



Figure 7-4. Stratified andesitic tuff outcrop.

### 7.2.2.3 Felsic Tuff

This unit is present throughout the mapped area and covers much of the eastern and southern areas (Figure 7-2). In the northern and western areas it is present as small outcrops of less than 5m thickness, contrasting to thicknesses of greater than 100m in the south. The variation in thickness is interpreted to be due to erosion.

In the upper part it is a lapilli tuff that grades to a lithic crystal tuff at the base of the unit, containing crystals of plagioclase and quartz in a fine grained matrix of ash. The lithic fragments are mostly angular and comprised of felsic tuff or quartz dacite. In general the rock is white to locally reddish beige due to the presence of hematite (Figure 7-5).

The felsic tuff overlies the quartz dacite tuff in a transitional contact.



Figure 7-5. Hand samples of rhyolitic tuff. Note pen barrel for scale.



#### 7.2.2.4 Quartz Dacite Tuff

Composed of fine grained lapilli (ash) matrix with abundant crystals of plagioclase, biotite, hornblende, quartz, and specularite. Includes horizons with sub-rounded lithic fragments of the same composition. Layering or pseudo-stratification strikes northwest and dips moderately ( $< 20^\circ$ ) to the southwest. Color varies from purple - light reddish in fresh rock to light gray, green and yellow-reddish depending on the type and intensity of alteration and weathering (Figure 7-6).



Figure 7-6. Hand samples of quartz dacite tuff. Note pen barrel for scale.

Crops out as an elliptical window in the central part of the mapped area (Figure 7-2), with a thickness of 140 meters as measured between the Arroyo de Maíz Azul (1220 masl) and Cerro de la Antena (1360 masl). In the west center corner of the mapped area the quartz dacite tuff is in discordant contact with andesitic porphyry.

The mineralization at Maiz Azul is hosted dominantly by this unit.

#### 7.2.2.5 Porphyritic Andesite

Sub-volcanic rock that underlies and/or intrudes the quartz dacite tuff. Crops out in the central western part and the southeastern corner of the mapped area (Figure 7-2). Porphyritic texture defined by phenocrysts of plagioclase, hornblende, and biotite. Hosts veinlets of specularite without quartz or with only traces of quartz. Color varies from brown green to dark gray (Figure 7-7). Unit is moderately to strongly magnetic. Unit is in discordant contact with other map units, this contact often at high angle orientation, suggestive of a vertical intrusive contact.

The northern part of the La Cascada structure is hosted by this unit.



Figure 7-7. Hand samples of porphyritic andesite. Note pen for scale.

### 7.2.3 Maiz Azul Area Structure

Three structural sets were mapped (Figure 7-2):

1. Northwest Regional System. Locally with strike orientation NA285 to 310, vertical to southwest dips. This system is associated with mapped alteration zones and quartz vein zones in the Maiz Azul area, and structures of similar orientation are associated with the nearby Mulatos and La India mines, particularly where intersected by other structures.
2. Northeast System, striking NA040 to 060, dipping 60 to 90 degrees to the northwest or southeast. These structures cut and slightly displace the northwest structures. Streams aligned with these structures are developed at lithologic contacts.
3. North-Northeast System. These structures strike north-northeast and are vertical to steeply east dipping and were mapped in the area of La Cascada. The surface expression is subtle, as fractures and discontinuous failure planes, however this structural orientation may be an important control of hydrothermal fluid flow. The fracture zone defines a more or less continuous zone with long dimension greater than one hundred meters, with discontinuous but correlated narrow (<1 m) outcrops of hydrothermal breccia. Some quartz veins with gold and copper in the La Cascada prospect have this orientation. An alteration mineral study of clays show that the clays collected from this zone are kaolinite and illite of relatively higher temperature relative to other clays analyzed in the area (Querol, 2020).

With the exception of the southeastern extension of the Maiz Azul structure that ends more or less abruptly in the Arroyo Maiz Azul, the other structures mapped appear to be more or less continuous, with only some short lateral displacements observed where NA 030 to 060 striking faults cut and slightly displace the NA285 striking structures, which otherwise appear to be continuous without major complications.



## 7.2.4 Maiz Azul Area Mineralized Zones

Three structurally controlled mineralized zones were identified in the mapped area, described as follows:

### 7.2.4.1 *Maiz Azul Zone*

Structural zone hosted by quartz dacite tuff, striking NA280 to 290, dipping 20 to 40 degrees to the southwest. Observed continuously over 350m of strike length and an altered width, defined by silica and clay alteration, up to 75m wide. Historic drillhole intercepts indicate a down dip extent of at least 150m. Independent samples of outcrop exposures of the Maiz Azul zone, collected by the author as part of the study documented in this report, returned 0.224 to 6.27 gpt Au. The structure was densely surface sampled by prior operators and partially drill tested. The northern projection of the zone extends off the concession onto claims controlled by Alamos Gold, however the drillhole data indicated continuity of the mineralized zone to the south and at depth. The mineralized zone crops out in the Maiz Azul arroyo at 1230 to 1255 masl and was intersected in drillholes at elevations between 1160 and 1220 masl, indicating a moderate angle orientation, possibly listric, to a tabular mineralized zone (Figure 7-8, Figure 7-9, Figure 7-10).

Drillhole MA-18-02 also hit a historically reported high grade intercept (2.1m @ 9.2 gpt Au) at 1110 masl, below the tabular shallow dipping mineralized zone. The deeper intercept is dissimilar to the outcropping manto zone of mineralization. It is associated with quartz sulfide microstringers at 40 to 60 degrees to the core axis suggesting a high angle mineralized structure of undetermined strike (Figure 7-10, Figure 7-11).



**Figure 7-8. Silicified veined and brecciated zone exposed along Arroyo Maiz Azul. View looking northwest. Mineralized zone dips gently to the southwest.**

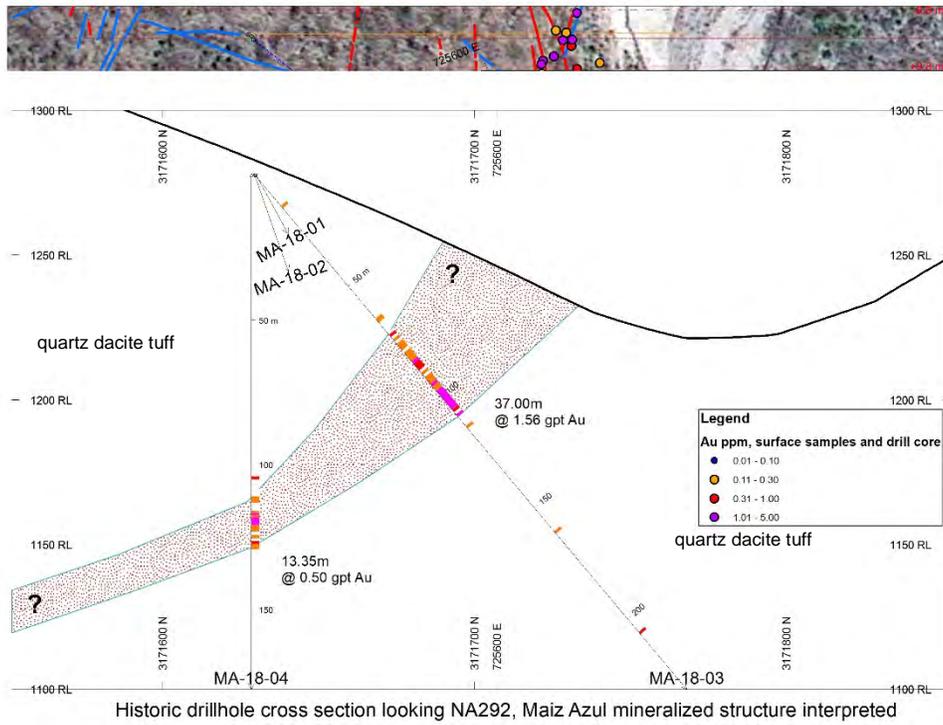


Figure 7-9. Cross section through Maiz Azul mineralized structure, looking NA292, showing historic drillhole and rock chip assays.

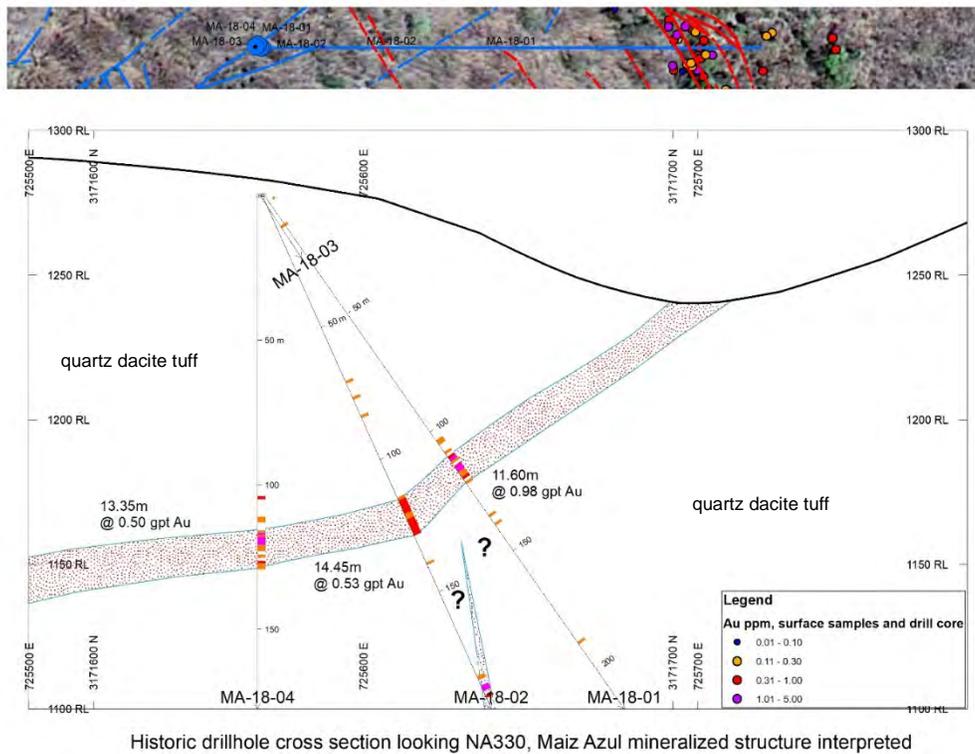


Figure 7-10. Cross section through Maiz Azul mineralized structure, looking NA330, showing historic drillhole and rock chip assays.



Figure 7-11. Mineralized intercept in MA18-02, below the gently dipping tabular Maiz Azul mineralized zone. Solid yellow lines denote interval 185.6 to 187.7m with composite intercept of 2.1m @ 9.2 gpt Au. Individual sample interval assays shown in figure. Dashed line is 186.6m. Downhole depth increases left to right, going down.

#### 7.2.4.2 La Cascada Zone

Mineralized structural zone striking NA285 – 300, dipping vertical to steeply southwest, exposed semi-continuously for 650m of strike length with an altered width of up to 100m as defined by silica, clay, and propylitic alteration. Depth extent is undetermined. Within the altered zone, quartz veins up to 1 m wide are present as are quartz veinlet stockworks and brecciated zones (Figure 7-12). The La Cascada zone is hosted by quartz dacite tuff and porphyritic andesite. Rock chip sampling by prior operators reported anomalous gold assays from portions of the zone as summarized in Figure 6-6. It outcrops at approximately 1270 masl. The zone has been partially sampled at surface but has not been drill tested. Because of its broad dimensions and rock chip gold assays, the La Cascada zone is considered by the author to be the most significant exploration target thus far identified in the Maiz Azul area.



Figure 7-12. View looking north at arroyo exposure of the La Cascada zone. Small exploration adits Cascada 1 and Cascada 2 are developed on veined breccia zones, contained within a broader silica-clay and argillicly altered zone. Historic sampling of the zone returned high grade (>8 gpt Au) results from the breccia and vein zones, and highly anomalous gold contents in the altered wallrock.

#### 7.2.4.3 X Structure

NA290 striking, vertical to 80° southwest dipping structure semi-continuously exposed for 350m of strike, that correlates with a zone of alteration defined by quartz veinlet swarms, (Figure 7-13) and projects to a silica-clay alteration zone mapped on a road cut 200m further to the south (Figure 7-14). The northern exposure of the X Structure is expressed as an approximately 10m high scarp associated with a 10m wide zone of quartz veining. The depth extent of the zone is unknown. Host rock is andesitic tuff. Crops out at elevation of approximately 1400 masl. This structure has not been previously mapped, described, nor sampled.





Figure 7-13. Quartz veinlets in a zone of silica-clay alteration in porphyritic andesite along the trace of the X Structure



Figure 7-14. Southern projection of X Structure exposed as zone of silica-clay alteration of porphyritic andesite with stockwork fractures with Fe-oxide.

#### 7.2.5 Maiz Azul Area Alteration

Hydrothermal alteration was identified in the mapped area, in a northwest elongate zone with dimensions of 1.0 x 0.8 km. Within this zone, alteration is fault and fracture controlled, with central zones of silica and clay alteration flanked by propylitically altered zones, and further outboard, by zones of less intense clay and calcite alteration (Figure 7-15).

The alteration mapped is typical of low sulfidation epithermal systems and includes: chalcedonic silica in irregular veins; banded crystalline quartz veins; remnants of silica caps; hypogene specularite veinlets; and illitic and smectitic argillic alteration. All the aforementioned are variably associated with quartz vein stockworks and hydrothermal breccias. Outcrop exposures are consistent with the higher levels of a low sulfidation epithermal system thus potential for mineralization at depth is indicated.

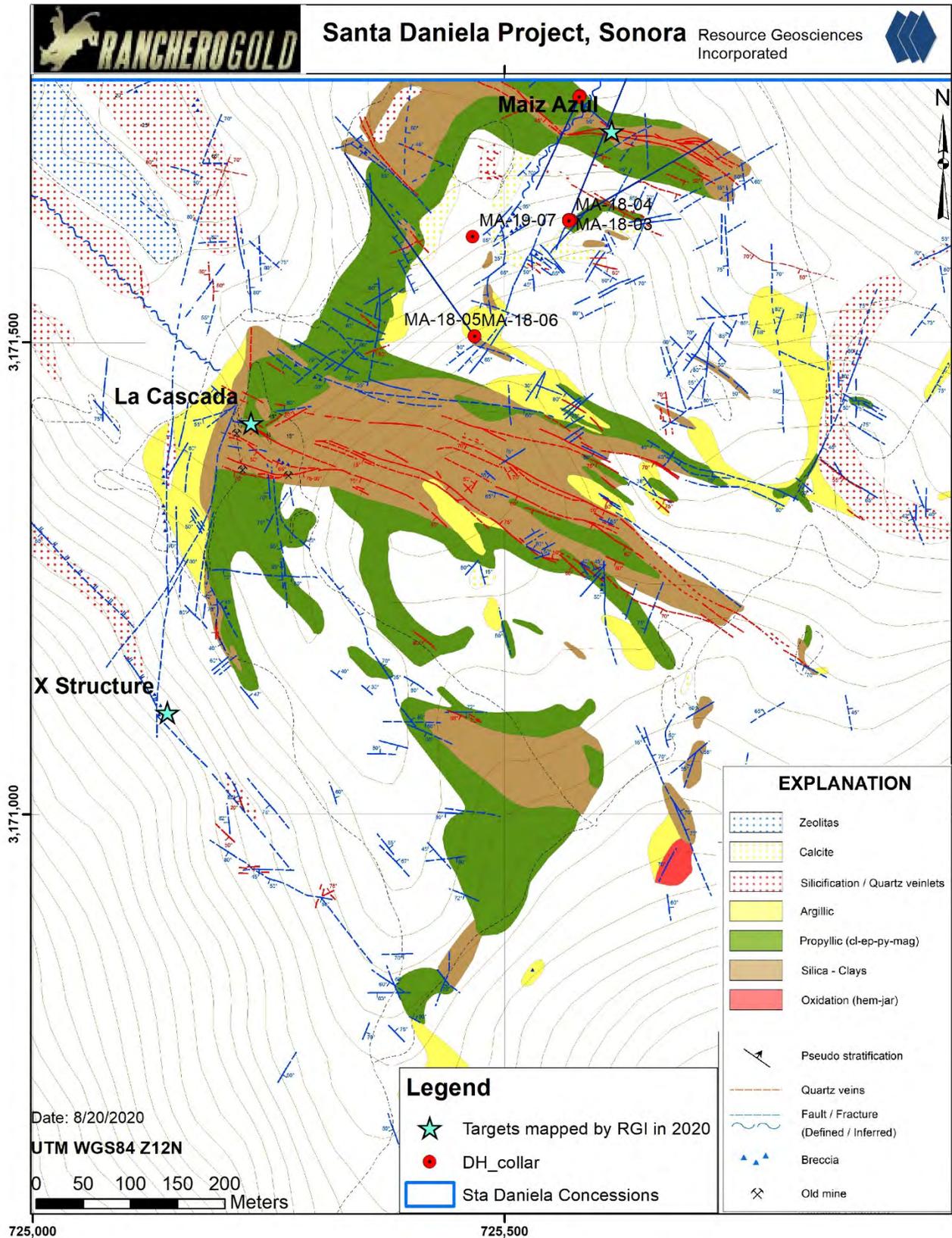


Figure 7-15. Hydrothermal alteration map, Maiz Azul area (Castellanos and Reyna, 2020).



Alteration zones mapped are:

#### 7.2.5.1 *Argillic*

Forms the outermost halo to mineralized structures and is typically proximal to propylitic zones. Characterized by textural destruction and pervasive clay replacement of the rock. Original colors lost and rock converted to greyish white color. Argillic zones commonly host calcite veinlets. Most intensely developed in the La Cascada area with dimensions of up to 200 x 50m.

#### 7.2.5.2 *Propylitic*

Forms a well-developed halo to structures hosted by quartz dacite tuff and porphyritic andesite. Imparts green hue to rock due to presence of chlorite. Hosts occasional veinlets of epidote-calcite. Well-developed and exposed in the western part of the La Cascada area with variable intensity over areas as great as 600 x 100 m. May host chalcedonic quartz veinlets less than 5 cm wide.

#### 7.2.5.3 *Silica – Clay*

Normally haloed by propylitic alteration and best developed in the quartz dacite tuff. Consists of alteration developed directly along northwest striking structures, manifested by bleached variably silicified rock, with pale green and white sericitic minerals. Spectral studies identified illites and smectites as the principal clay minerals (Querol, 2020). Hosts veins and veinlets of quartz  $\pm$  pyrite  $\pm$  specularite, jarositic where weathered. Veins are typically 0.1 to 20 cm wide, but at La Cascada individual veins are as much as 1 m wide. Silica-clay alteration zones are continuous over hundreds of meters along strike of structures.

### 7.2.6 Maiz Azul Area Vein Types

Three distinct vein events are recognized in the Maiz Azul area. All are quartz or silica dominated but exhibit differences in texture and association with mineralization. In interpreted order of formation the vein sets are:

#### 7.2.6.1 *Early stage chalcedonic quartz veins*

Banded chalcedonic quartz, white to reddish color, as irregular veinlets typically less than 5cm wide, or as chalcedonic patches within the northwest striking structural zones, typically within the silica-clay alteration zone but also observed in propylitic zones. Historic sampling of these veins did not yield anomalous gold contents and they are considered sterile.



### 7.2.6.2 Banded white quartz veins

Banded white quartz crystalline quartz veins and lenses, with multi-stage veining textures (Gray, 2020) occurring as druses, open space filling veins, breccia veins, and stockworks (Figure 7-16, Figure 7-17, Figure 7-18, Figure 7-19, Figure 7-20, Figure 7-21, Figure 7-22). Occasionally with pyrite. Veins generally strike NA285 to 315, dipping vertically to moderately ( $50^\circ$ ) to the southwest. These veins are more or less continuous along strike over hundreds of meters. Thicknesses of individual veins varies from 10cm in the Antena area at 1370 masl to up to 1m at the La Cascada zone at 1270 masl. This vein stage is clearly associated with the gold mineralization mapped and sampled at surface and intersected in historic drilling.



**Figure 7-16 Drillcore, M18-01, ~114.5 to 117m (upper left to bottom right), quartz veined and quartz cemented breccia zone in quartz dacite tuff. Veined zone assayed 3.54, 0.60, 4.19, and 3.12 gpt Au respectively for samples MA-98 through MA-101, 114.35 to 117.0m.**



Figure 7-17. Close up of multistage quartz veinlet, drillhole MA18-01, ~115.5m depth. Early stage, open space filling, white crystalline quartz at margin of veinlet, and later low temperature silica filling open space at center of veinlet. Note veinlet crosscuts zone of silica cemented breccia. Interval assayed 4.19 gpt Au.



Figure 7-18. Drillcore M18-03, knife at ~104.6m. Interval 103.80 to 104.80m assayed 3.12 gpt Au, 104.80 to 105.70m assayed 6.92 gpt Au.



Figure 7-19. Drillcore MA18-03, breccia vein zone at ~104.6m. This drill core sample assayed 3.12 gpt Au.



Figure 7-20. Drillcore MA18-03, ~105m depth, silica matrix hydrothermal breccia. Note: banded silica rim on dark silicified volcanic clast in lower left of photo; angular clasts of dense grey silica and weakly banded silica in siliceous microbreccia matrix. This interval assayed 6.92 gpt Au.



Figure 7-21. Banded silica vein fragment as breccia clast, below and right of knife blade, drillhole MA18-03, ~98m depth. Interval 98.00 to 99.05m assayed 7.7 gpt Au.



**Figure 7-22.** Hand specimen of quartz vein breccia zone exposed along Arroyo Maiz Azul. Note similarity to breccia seen in drillcore in Figure 7-19.

#### 7.2.6.3 *Late stage cryptocrystalline grey silica veinlets*

Occur as hairline veinlets less than 1mm wide that cut silicified zones in felsic tuffs and overprint zones of silica-clay alteration associated with banded white quartz veins. Felsic tuffs in the southeast portion of the mapped area are intensely silicified with disseminated pyrite, with a semi-circular outcrop pattern suggestive of a remnant silica cap, consistent with the upper levels of a low sulfide epithermal system. This silicified zone hosts thin grey silica veinlets, possibly with alunite (could not be identified by TerraSpec analysis due to silica interference lines (Querol, 2020)). Rock chip samples collected by previous operators from this area did not yield gold anomalies but showed anomalous contents of Ba, As, and Sb. The late cryptocrystalline veinlets are considered sterile.

### 7.3 Oxidation

Oxidation at the Maiz Azul target was observed to range from complete oxidation in the uppermost portions of the deposit exposed in outcrop, to a generally complete lack of oxidation, with primary sulfide minerals preserved, at downhole depths of 9 to 20 meters in most drillholes. However oxidation profiles appear to extend to deeper levels along structural zones that permitted the downward percolation of meteoric waters.



## **7.4 Conclusions**

The Maiz Azul area hosts structurally controlled low sulfidation epithermal gold mineralization. Historic surface sampling and drill core sampling indicates grades in excess of 1 gpt Au are present within the mineralized zones. Extents and morphologies of mineralized zones are not constrained by drilling or surface mapping and sampling. Alteration styles and textures observed in outcrop are consistent with those of the upper levels of epithermal mineralized systems thus there exists potential for discovery of mineralization below the mapped altered and mineralized zones.



## 8 DEPOSIT TYPES

At the Maiz Azul prospect, surface outcrop mapping and drillhole data indicates that the gold system there exposed is best classified as a low sulfidation epithermal gold deposit. Low sulfidation deposits may be present as veins and/or disseminated deposits and hosted by intrusive, volcanic, and sedimentary rocks. Features common to such deposits (Buchanan, 1981) (Hayba, 1985) (Heald, 1987) (Bonham, 1988) (Berger, 1989) (Albinson, 2001) include:

- Intermediate to felsic, calc-alkaline volcanic host rocks.
- Association with intrusive centers.
- Alteration mineral assemblages dominated by sericite, quartz, adularia, and chlorite.
- Variable Au:Ag ratios.
- Ore mineralogy characterized by argentite, tetrahedrite, tennantite, native silver, native gold, and base-metal sulfides.
- Vertical geochemical zoning, with well-defined upper and lower elevation limits to economic mineralization, over vertical ranges of 200 to 700m.
- Open space filling vein textures.
- Quartz and carbonate gangue minerals.
- Ore and gangue mineral textures indicative of low temperature environments.

Because of its location within the Mulatos Mining District, which in 2019 had three operating mines exploiting high sulfidation (HS) gold deposits (Agnico Eagle Mines Ltd., 2020) (Alamos Gold Incorporated, 2020), as described in Section 23 of this report, the Santa Daniela project is prospective for discovery of volcanic hosted, epithermal, high sulfidation gold-silver deposits. Such deposits may be present as veins and/or disseminated deposits. Some of the most intensely studied and described HS deposits include Summitville, Colorado (Stoffregen, 1987) (Gray, J.E., and Coolbaugh, M.F., 1994), Goldfield, Nevada (Ransome, 1909) (Ashley, 1974) (Vikre, 1989), Lepanto, Philippines (Hedenquist, 1998) and Julcani, Peru (Petersen, 1977) (Deen, 1994). Based upon these studies and others, excellent compilations of general characteristics and genetic and empirical models have been presented by (Hayba, 1985), (Heald, 1987), (Berger, 1989) and (Arribas, 1995). General characteristics of HS deposits include:

- Located within plutonic-volcanic arcs.
- Associated with intermediate calc-alkaline rocks, often in dome complexes.
- Alteration mineral assemblages indicative of high temperature acidic hydrothermal fluids, including an advanced argillic assemblage characterized by one or more of pyrophyllite, alunite, dickite, kaolinite, and diaspore.
- Silicification and acid leaching of principal hydrothermal fluid conduits (forming the clichéd “vuggy silica” alteration).
- Presence of minerals indicative of high sulfidation states, principally the sulfosalt enargite or its low temperature polymorph luzonite.
- Economically important quantities of Au and/or Ag and/or Cu.



- Alteration zoning typified by a central zone of silica alteration flanked by a zone of advanced argillic alteration, which in turn is surrounded by illite dominated argillic alteration.

Genetic models proposed for HS systems call upon shallow emplacement of an oxidized calc-alkaline magma. As the magma crystallizes, a metal- and volatile-rich fluid phase exsolves, and at relatively low confining pressures will separate into a low salinity vapor and a hypersaline liquid. The vapor phase ascends and when absorbed into connate or meteoric waters, forms a high temperature, sulfate-rich, acidic hydrothermal fluid. As this hydrothermal fluid ascends and cools, acidity progressively increases, resulting in a vertical zonation where advanced argillic assemblages overly illite-dominated argillic assemblages. Neutralization and cooling of the fluid during lateral fluid flow repeats this zoning pattern, with proximal silicified and leached zones flanked first by advanced argillic alteration, and then by more distal illite dominated alteration. As the hydrothermal system evolves, younger, more reduced hydrothermal fluids, probably generated by interactions between ascending hypersaline magmatic fluid and meteoric water dominated convection cells, then transport and deposit metals (Au-Ag-Cu) along the same conduits utilized previously. Metals may be sourced directly from the magmatic fluids or leached from country rocks.



## 9 EXPLORATION

### 9.1 General

Ranchero has conducted due diligence field reviews of the Santa Daniela project comprised of rock chip sampling but has not conducted detailed exploration at the project beyond the reconnaissance work described in this report. In the period January to August 2020 Ranchero reported expenditures of \$458,161 USD at the project, including costs for geologic mapping, thematic mapping, geochemical reconnaissance surveys, and establishment of field camps. Historic exploration by prior operators is summarized in Item 6 of this report. Work completed by Ranchero, or for the benefit of Ranchero, is summarized herein.

### 9.2 Geologic Mapping

In 2020 Ranchero hired Resource Geosciences Incorporated and its sister company Resource Geosciences de Mexico SA de CV to create a detailed geologic map of the Maiz Azul area and complete a rock alteration study using a TerraSpec portable mineral analyzer. Additionally all core from the Maiz Azul target was relogged and alteration assemblages in drill core samples was studied using VNIR-SWIR spectroscopy using TerraSpec equipment. This work forms the basis for the geologic information presented in Section 7.2 of this report.

### 9.3 Thematic Mapping

In February 2020 Ranchero contracted Perry Remote Sensing Services (Perry) of Denver, Colorado to conduct alteration mineral analysis using ASTER/LandSat data (Figure 9-1). This survey was conducted over the entire concession area.

Perry obtained an archived Landsat 5 scene, Path34 Row40, acquired May 3, 2004, from the USGS EROS Data Center in Sioux Falls, SD. Landsat 5 provides 30-meter spatial resolution. Perry then obtained an ASTER scene from the EROS Data Center which was acquired 8 days after the Landsat-5 scene on May 11, 2004. The same area for processing was subset from the ASTER data and co-registered to fit the Landsat subset. Landsat VNIR bands were combined with ASTER SWIR bands, rectified to UTM 12 North, WGS84 map base and combined to form a “hybrid” data set, offering an improved total of 10 bands for spectral analysis. The hybrid data set was atmospherically corrected and prepared for mineral modeling. Several local alteration sites were known within the processed scene plus including the known alteration styles at the adjacent Mulatos and El Victor Au deposits. Image classification was applied to evaluate suspected argillic, advanced argillic, sericitic, and propylitic alteration minerals, as found in the Mulatos district. Each alteration mineral model was provided as a separate vector polygon shpfile.

Results delivered included a DEM, regional structural analysis, and identification of various alteration assemblages potentially related to mineralization (Perry, 2020). A



program of follow-up field visits by Ranchero has begun as of the effective date of this report.

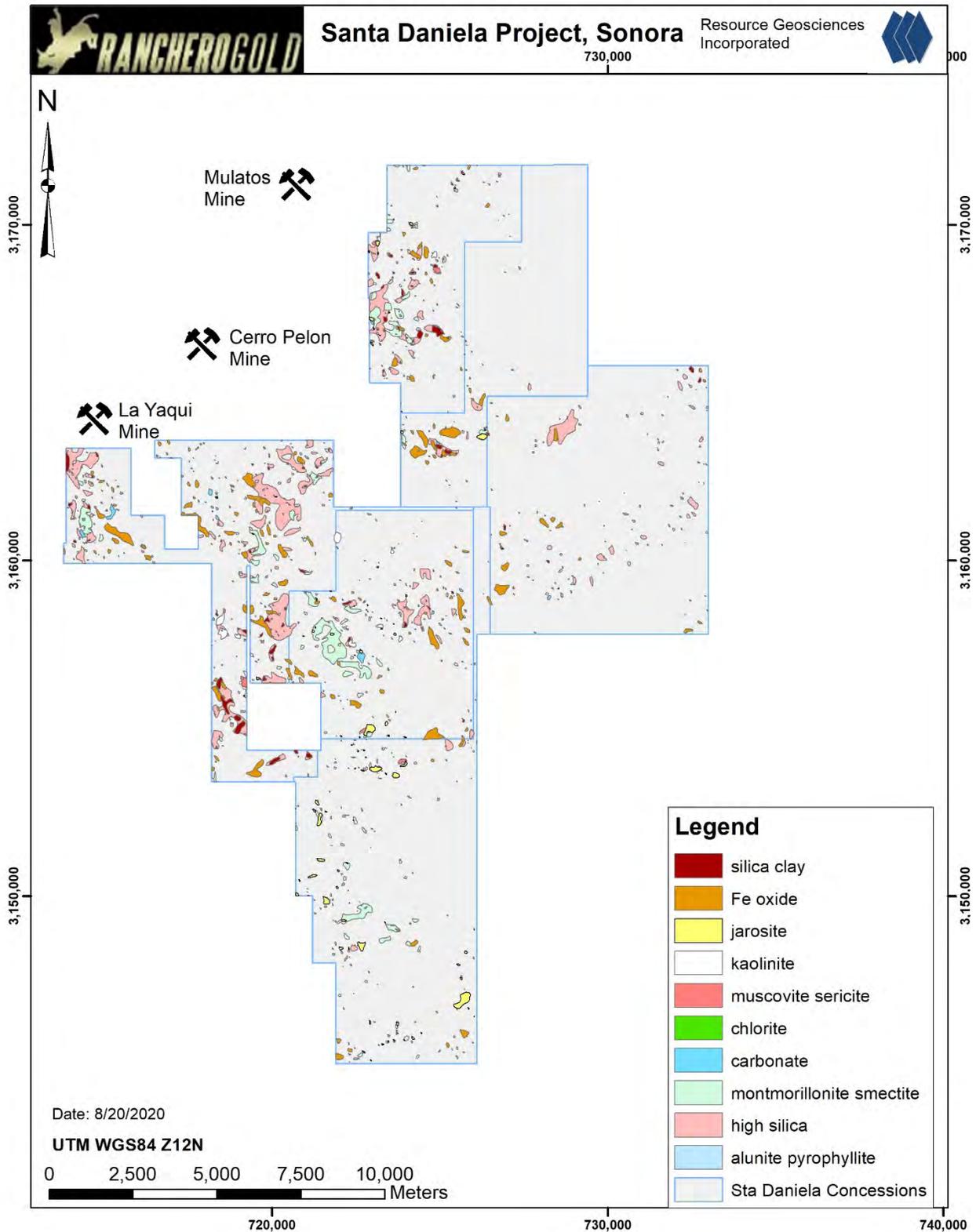


Figure 9-1. Thematically mapped interpreted hydrothermal alteration (Perry, 2020).



## **9.4 Rock Chip Sampling**

Geologists under contract to Ranchero's subsidiary Paika conducted rock chip sampling in areas that had not been historically sampled. As of the effective date of this report 163 samples had been collected and analyzed. Anomalous gold assays were returned from sampling of veined and silicified zones, consistent with the results reported from sampling programs conducted by prior operator AHMSA. Results for gold analyses of the samples are shown in Figure 9-2.

Sampling was widely spaced and reconnaissance in nature, consisting of site specific grab samples, representative chip samples over 1 to 3 m lengths, and very few true channel samples over 1 to 2 m lengths. The sampling density is insufficient to indicate true widths or representative gold contents of the sampled areas, however the data is valid and useful for identifying areas favorable for hosting gold mineralization that merit more detailed evaluation.

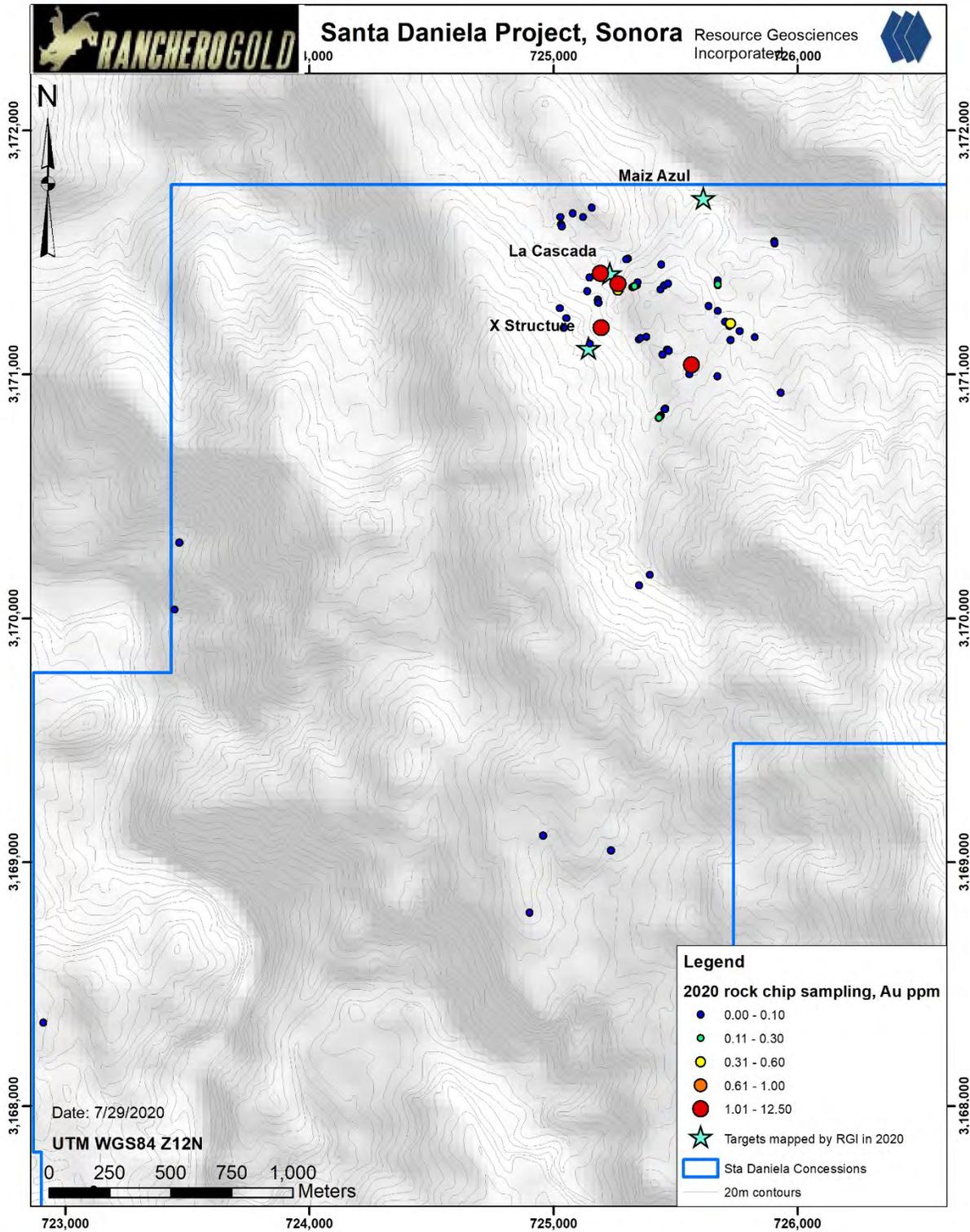


Figure 9-2. Gold assays, rock chip samples collected by Rancho in 2020.



## **10 DRILLING**

### **10.1 Drilling History**

No drilling has been conducted on the property by Melior. Prior operator AHMSA conducted drill campaigns at the project as described in Section 6.2 of this report.



## 11 SAMPLING METHOD AND APPROACH

### 11.1 Sampling Field Methods

Contract geologists working for Ranchero's subsidiary Paika conducted follow up visits to gold mineralized areas identified during previous historic sampling programs. Additional samples were collected to obtain rock chip geochemical information for areas outside of the previously sampled zones. Locations were marked on the ground and recorded with GPS. Samples were collected manually, described tagged and bagged and then sent for analysis by ALS Chemex, an independent internationally certified laboratory. A total of 163 samples were collected. Control samples comprising ~6% of total samples consisting of 5 blank samples and 5 reference standards were inserted into the sample stream. Samples were kept in the possession of Paika until delivered to ALS Chemex in Hermosillo.

### 11.2 Analytical Methods

Rock chip samples were submitted to an ALS Chemex preparation facility in Hermosillo, Sonora, and pulps then sent to an ALS laboratory in Vancouver for analysis. ALS Chemex is independent of Melior and Ranchero and is an internationally recognized provider of analytical services to the mining and exploration industries. ALS Chemex internal audits meet all requirements of ISO/IEC 17025:2017 and ISO 9001:2015. All ALS Geochemistry hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures (ALS, 2020).

Upon receipt at the sample preparation lab the samples were dried, crushed in their entirety to >70% passing a 2mm screen. The crushed material was riffle split to extract an approximate 250-gram sub-sample that was pulverized to >85% passing 75 microns in a disc pulveriser. This sample preparation procedure is the standard ALS Chemex "CRU-31, SPL-21, PREP-31" procedure. Analysis of gold was by standard fire assay using the "Au-AA23" method of ALS Chemex, in which prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead. The bead is digested in dilute nitric acid and concentrated hydrochloric acid and analyzed by atomic absorption spectroscopy. Samples that yield greater than 10 gpt Au upper limit are re-analyzed using a gravimetric finish. Multielement assays were by ALS Chemex method ME-ICP41 which assays for 35 elements by aqua-regia acid digestion and ICP-AES.

### 11.3 Results of Security, Quality Control Procedures and Adequacy of Results

Chain of possession security methods were adequate to ensure that persons not a part of Ranchero or Paika did not have access to the samples up to the point that they were delivered to the laboratory. Control sample data points are too few to allow for meaningful evaluation of results but no analytical problems were indicated by the results. The reconnaissance rock chip sample results are adequate to confirm the gold mineralized



zones identified by previous operators of the project and to identify areas that merit detailed geologic mapping and systematic geochemical sampling.



## 12 DATA VERIFICATION

Melior has not yet commenced an exploration program at the project, thus there is no current data to be verified.

Dr. Gray examined historic rock chip sample and drill core sample assay data, as well as historic geophysical reports and maps. Dr. Gray observed archived drill core and drill logs during the site visit and is of the opinion that the drill core obtained is representative of the areas drilled. Dr. Gray observed drill roads and drill pads in the project area, and evidence of outcrop sampling, that are consistent with the historic drill programs and sampling programs described for the project. The QA/QC and data verification procedures used during the historic drilling and rock chip sampling programs are undocumented. Dr. Gray did not have access to original assay certificates or drillhole survey data, nor was Dr. Gray able to collect and analyze duplicate samples of drill core thus Dr. Gray is not able to verify the drillhole assay data generated by prior operators of the Santa Daniela project, however Dr. Gray has no reason to believe the historical data is less than valid and representative.

Dr. Gray collected rock chip samples from surface outcrop exposures of the Maiz Azul zone, summarized as shown in Table 12-1. Independent sampling is insufficient to validate the historic rock chip sample assay database, but results were consistent with historically reported results. Silicified and quartz veined zones returned anomalous gold contents as presented in Table 12-1. Complete assay results and sample photos are included as Appendix 6.

**Table 12-1. Rock chip sample assay results, independent samples, M Gray.**

Sample ID	UTM E WGS84 Z12N	UTM N	Description	Au ppm	Ag ppm
SD-1	725702	3171707	silicified porphyritic dacite, dense porcelainous silica cut by cryptocrystalline and fine drusy quartz veinlets	6.27	10.6
SD-2	725731	3171694	multistage quartz veined rhyolitic tuff (?). White porcelainous silica, in places brecciated with red hematitic silicified matrix. Veinlets irregular - tectonized? Latest veinlets are drusy	0.226	1.8
SD-3	725730	3171707	silicified and quartz veined rhyolitic tuff just above NA330 25SW contact with underlying weakly argillized dacite	0.994	2.2
SD-4	725730	3171707	footwall to sample SD-3, weakly argillized feldspar porphyritic dacite porphyry	<0.005	<0.2



**Neither the historic drillhole database nor the historic rock chip assay database has been verified by the author. The drillhole and rock chip assay databases are not considered current,** but based on the work reviewed, it is Dr. Gray's opinion that the historical drillhole and outcrop assay data and information disclosed in this report is valid and adequate in providing a basis for further work, which includes the data verification described in Section 26 of this report.



### **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

No metallurgical or mineral processing studies have been conducted.

### **14 MINERAL RESOURCE ESTIMATES**

The Santa Daniela project does not host a current Mineral Resource.



## 23 ADJACENT PROPERTIES

The Santa Daniela project concession holdings are contiguous with the mineral concessions of Alamos Gold Inc. The Maiz Azul prospect is 4.5km east of the Mulatos Mine open pit, 13km northeast of the La Yaqui gold project, and 9km northeast of the Cerro Pelon mine (Figure 4-1). Alamos Gold Inc. is currently operating the Mulatos and Cerro Pelon Mines, and developing a new mine at La Yaqui. In 2019, the Mulatos Mine complex inclusive of Cerro Pelon produced 142,000 oz gold and at year end the Mulatos pit had reported Proven and Probable Mining Reserves of 0.675M oz gold in 19.337K tonnes of material with a grade of 1.09 gpt Au, and the Cerro Pelon pit had a reported Proven and Probable Mining Reserve of 0.164M oz gold in 2.630K tonnes of material with a grade of 1.94 gpt Au (Alamos Gold Incorporated, 2020). The La Yaqui project has a reported Proven and Probable Mining Reserve of 0.724M oz gold in 19.205K tonnes of material with a grade of 1.17 gpt Au (Alamos Gold Incorporated, 2020).

The Maiz Azul prospect is 20km E-SE from the La India gold mine (Figure 4-1), currently being operated by Agnico Eagle Mines Ltd. In 2019 the La India mine produced 82,190 oz gold and at year end had reported Proven and Probable Mining Reserves of 490,000 oz Au in 20.432K tonnes of material with a grade of 0.75 gpt Au (Agnico Eagle Mines Ltd., 2020)

The Mulatos, Cerro Pelon, La Yaqui and La India mines exploit high sulfidation epithermal gold deposits.

**Dr. Gray has not verified this information and the mineralization described for the mines and mineral deposits in this section is not necessarily indicative of the mineralization at the Santa Daniela, Sonora property.**



## **24 OTHER RELEVANT DATA AND INFORMATION**

To the best of the author's knowledge, all relevant data has been presented in this report.



---

## 25 INTERPRETATION AND CONCLUSIONS

### 25.1 Geologic Interpretation

The Maiz Azul area, the only portion of the Santa Daniela project thus far evaluated by Resource Geosciences Inc., hosts three outcropping structures prospective for hosting low sulfidation, epithermal gold mineralization: 1) Maiz Azul; 2) La Cascada; and 3) X Structure (Figure 25-1). Only the Maiz Azul zone has been the subject of historical drill testing. Historical outcrop sampling has partially tested the La Cascada zone. The X structure has not been sampled. **Neither the historical drillhole database nor the historical rock chip assay database has been verified by the author. The drillhole and rock chip assay databases are not considered current**, but based on the work reviewed, it is the author's opinion that the historical drillhole and outcrop assay data disclosed in this report is valid and adequate in providing a basis for further work, which includes the verification studies described in Section 26 of this report.

Historical results from drill tests of the Maiz Azul structure returned potentially significant gold intercepts, as summarized in Section 6.2 of this report, and although the **drillhole data is historical in nature and is not considered current**, it, and the author's own independent sampling, demonstrates that Santa Daniela has potential to host a gold deposit of significance, associated with structurally controlled vein and breccia zones hosted by Tertiary volcanic strata.

Observations made during mapping in 2020 suggest that the mineralized occurrences at Maiz Azul and La Cascada, and the weakly altered zone mapped as X Structure, are high level manifestations of epithermal mineralization. Historic outcrop and drill sampling of the Maiz Azul demonstrated that it is gold mineralized. At Cerro Nopalera, at an elevation of 1340 masl, the northwestern projection of the Maiz Azul mineralized zone is manifested as a zone of quartz veinlets in andesitic volcanics, suggesting that at the higher levels, the intensely mineralized Maiz Azul zone grades into a zone of quartz veinlets. A similar relationship was observed at La Cascada, where the mineralized zone is expressed as a zone of quartz veining and brecciation in the La Cascada arroyo at elevation 1280 masl, however at Cerro La Antena along the projection of the zone to the southeast, the zone is expressed as a more subtle zone of quartz veinlets in andesitic volcanics at an elevation of 1360 masl (Figure 25-2). The X Structure is a zone of quartz veinlets and argillic alteration similar to that seen above the Maiz Azul and La Cascada mineralized zones.

Of potentially greater significance than the Maiz Azul zone is the La Cascada zone. Historic surface sampling data indicates gold concentrations similar to those in surface exposures of the Maiz Azul structure, but the mapping conducted as part of the study for this report indicates that the strike and width of the La Cascada alteration zone, approximately 700 x 100m, exceeds that of the Maiz Azul zone, and the La Cascada target merits detailed evaluation.

The X Structure presents a speculative target. Hydrothermal alteration consistent with the upper levels of an epithermal system was mapped on surface, at elevations 130 to



150m higher than those of the Maiz Azul and La Cascada zones and is permissive of mineralized portions of the structure lying at shallow depths below surface.

The Maiz Azul structure is a moderately dipping, possibly listric structure, whereas the La Cascada and X Structures appear to be high angle structures that are projected to intersect the Maiz Azul Zone at depth. The projected intersection of mineralized structures is a permissive target for hosting significant mineralization.

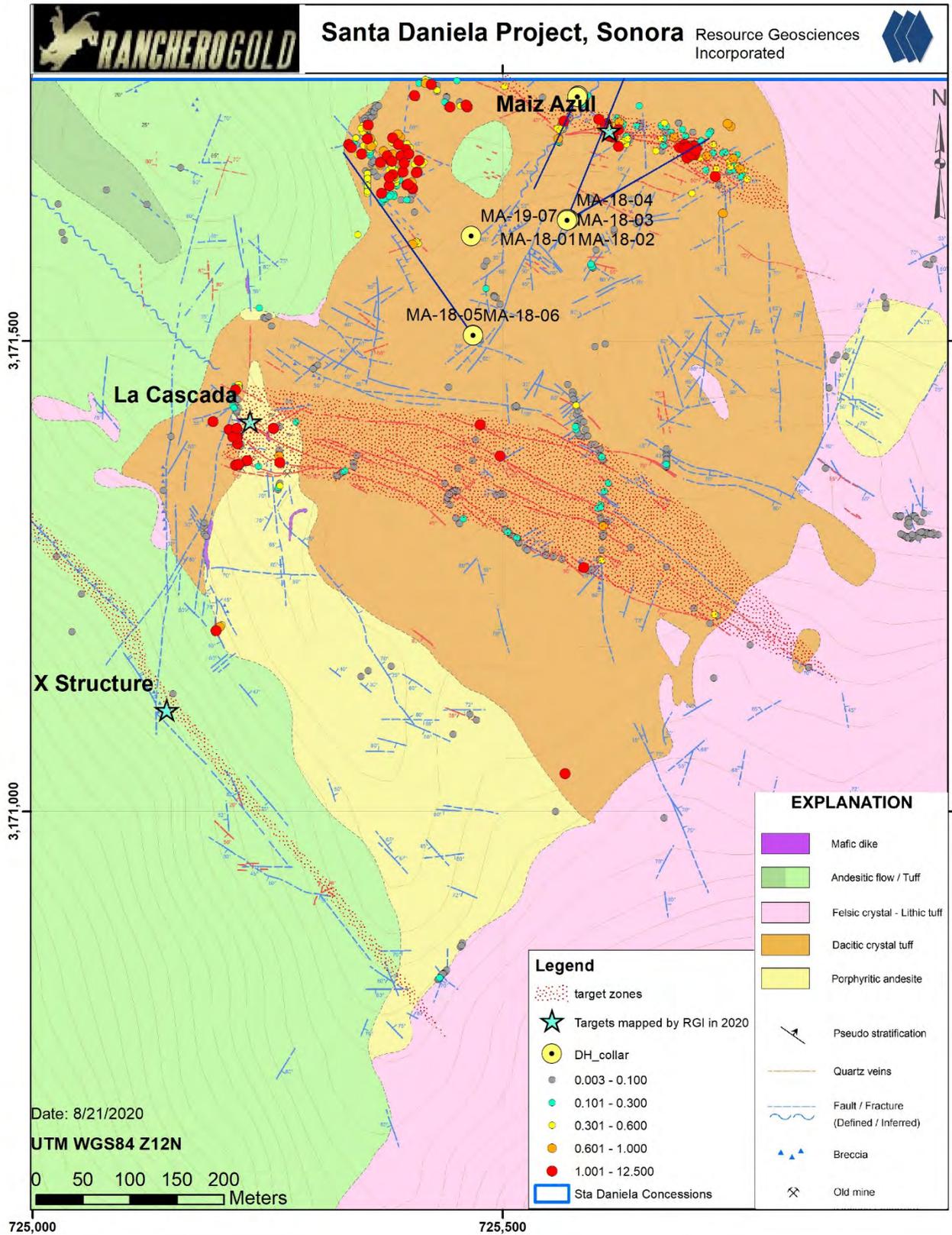


Figure 25-1. Maiz Azul area geology, historical rock chip gold assay data, and historical drillhole locations.

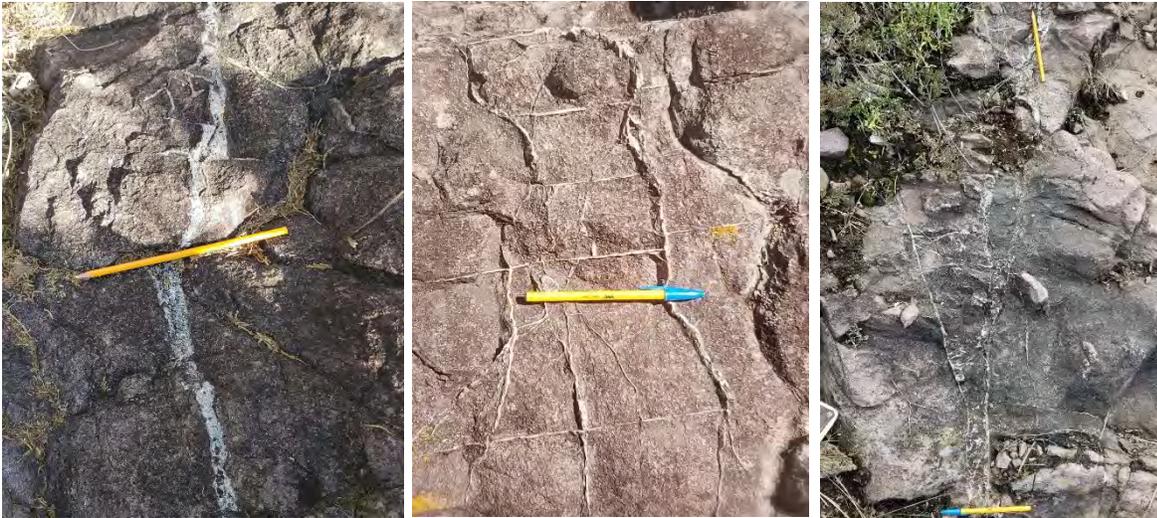


Figure 25-2. Left to right, high level exposures of Maiz Azul mineralized zone, La Cascada mineralized zone, and X Structure zone.

## 25.2 Project Opportunities

Historical outcrop and drillcore assays and outcropping, mappable vein zones and hydrothermal alteration zones demonstrate that the Santa Daniela project is prospective for hosting a structurally controlled, low sulfidation epithermal gold deposit. High priority targets for drill testing have been identified by the historical work and recent mapping. The La Cascada and Maiz Azul zones were known from prior historical sampling, and a new target area, the X Structure, was identified during mapping in 2020. A geologically reasonable but speculative target, the structural intersection of high angle structures with the Maiz Azul structure, is proposed based upon the recent mapping. Opportunities exist to:

1. Confirm, by diamond core drilling, the mineralization indicated by historic drillhole intercepts reported for the Maiz Azul structural zone and demonstrate strike and dip continuity of the mineralized zone exposed in the Arroyo Maiz Azul.
2. Explore, by diamond core drilling, gold mineralization in the La Cascada structural zone.
3. Discover mineralization at depth, by diamond core drilling, along the X Structure.
4. Discover mineralization at the projected intersection of high angle mineralized structures with the Maiz Azul structure.
5. Discover new mineralized zones in areas of the concession that have not yet been mapped and evaluated. Outside of the Maiz Azul area, the concessions comprise an early stage exploration opportunity that merits



evaluation. Analogs to targets that should be sought are Maiz Azul style low sulfidation epithermal mineralization and high sulfidation mineralization similar to the La India and Mulatos gold deposits. Oligocene-Miocene ignimbritic and extrusive volcanic strata cover much of the concessions, and these areas are not considered prospective, but erosional windows exposing potentially mineralized Lower Series strata could be sought using regional stream sediment geochemical surveys. The utility of this method could be quickly demonstrated or disproven with an orientation survey over the Maiz Azul area.

### **25.3 Project Risks**

No extraordinary risks were identified. The project is subject to normal geologic, social, and legal risks.

#### **25.3.1 Permitting Risk**

Because the Santa Daniela project is in an active mining district with a recent history of successfully permitting exploration programs and mine operations, it is presumed that additional exploration activities at Santa Daniela, and eventual production from any deposits discovered, would not be prohibited by environmental regulations. Paika currently holds a drill permit authorizing drilling from 208 drillpads in the Maiz Azul area on a 100 x 100m grid pattern, as discussed in section 4.6.1 of this report.

#### **25.3.2 Water Supply Risk**

Paika has acquired industrial use water rights for project use, as detailed in Item 5.3 of this report, thus mitigating the social/political risk of obtaining water for the project.

The technical risk of developing a well field is unquantified.

#### **25.3.3 Surface Access Risks**

Paika has had an amicable relationship with Mulatos Ejido and regional stakeholders and successfully negotiated acquisition of surface rights for the most advanced target area at the Santa Daniela project, as discussed in Section 4.4 of this report. Additional surface rights would likely be required if an economic deposit were discovered and developed. In light of this history, the author does not see undue risk of community opposition to project development.

#### **25.3.4 Metallurgical Risk**

The metallurgical risk is that any mineralization discovered may not be amenable to standard gold recovery and beneficiation methods. Oxidation profiles in the district vary



from shallow to moderate, thus mineralization not exposed at surface is likely to be sulfide bearing at shallow depths with may affect amenability to standard heap-leach gold recovery.



## 26 RECOMMENDATIONS

A 12-month, 2 stage work plan is recommended. The first stage comprises 6 months and encompasses: validation and confirmation of the mineralization indicated by the historic rock chip and drillhole database; drill testing of the La Cascada and X Structure targets; drill testing of structural intersections along the Maiz Azul structure; and regional geochemical and geological studies to discern areas prospective for hosting mineralization (and conversely, to identify areas covered by unmineralized volcanic cover that postdates the known mineralizing events, such areas can be removed from the mineral concession holdings). A total of 3,000m of diamond core drilling is recommended for Stage 1. The second stage, lasting 6 months, which is conditional upon positive results from the first, comprises definition drilling of mineralized zones confirmed during the Stage 1 drill program and detailed geologic mapping and geochemical surveys of mineralized areas discerned during Stage 1 exploration. Exclusive of corporate costs and holding costs, the total recommended Stage 1 budget is \$1.2M USD. The conditional Stage 2 budget is \$3.2M. All Stage 2 work is contingent upon successful results from Stage 1 work. Recommended work plans and budgets are summarized in Table 26-1.

### 26.1 Stage 1: Data Confirmation, Drill Testing of the La Cascada and X Structure targets, Regional Geochemical and Geological Studies

#### 26.1.1 Historic Data Validation

Historic data demonstrates that Santa Daniela has potential to host an economic gold deposit. The author has no reason to doubt the validity of the reported historic results, however, **neither the historic drillhole database nor the historic rock chip assay database has been verified by the author or Melior and are not considered current.** The proposed Stage 1 program would validate or supersede the historic data, by conducting systematic rock chip geochemical sampling of outcrop by means of high-quality channel samples, and by diamond drilling the Maiz Azul mineralized zone, testing the areas with reported historical mineralized intercepts. Sampling of drill core by previous project operators was not continuous and in many cases drill core intervals that returned anomalous gold assays are “orphan intercepts” with drill core above and below the mineralized interval unsampled. Archived drill core should be sampled to complete the gaps in downhole sampling of the drillcore.

#### 26.1.2 Drill Testing of La Cascada, X Structure, and Structural Intersection Targets

Neither the La Cascada or X Structure have been drill tested by prior operators and both merit initial drill tests. Both appear to be high angle structures that are projected to intersect the Maiz Azul Zone at depth. The projected intersection of mineralized structures is a permissive target for hosting significant mineralization and merits drill testing.

#### 26.1.3 Regional Exploration



Regional stream sediment geochemical surveys and reconnaissance geologic mapping are recommended in order to distinguish areas covered by post-mineral volcanics and thus low exploration potential from regions underlain by potentially mineralized volcanic strata. Following completion of the regional program, the concession holdings can be rationalized and reduced to only those areas underlain by lithologies known to be favorable mineralization hosts elsewhere in the district.

#### 26.1.3.1 Cost

A 6 month, approximately \$1.2M USD program, exclusive of project holding costs and corporate costs, is recommended. Costs and time frame to complete the Stage 1 program are summarized in Table 26-1.

### **26.2 Stage 2: Definition Drilling of Stage 1 Drill Discoveries and Detailed Geologic and Geochemical Evaluation of Stage 1 Target Discoveries**

Conditional upon positive results from Stage 1 work, Stage 2 work comprising definition drilling of mineralized zones confirmed during the Stage 1 drill program, and detailed geologic mapping and geochemical surveys of mineralized areas discerned during Stage 1 exploration, is recommended.

#### 26.2.1 Resource Definition Drilling

Any drillhole confirmed zones of significant mineralization demonstrated by the Stage 1 work should be further evaluated by systematic drilling designed to provide data necessary for estimation of Mineral Resources. A total of 10,000m of drilling is proposed.

#### 26.2.2 Evaluation of New Targets

Detailed geochemical and geological studies of mineralized areas discovered during Stage 1 exploration should be conducted with the objective of obtaining sufficient information to program drill testing of the newly discovered targets.

#### 26.2.3 Cost

A 6 month, approximately \$3.21M USD program, exclusive of project holding costs and corporate costs, is recommended. Costs and time frame to complete the Stage 1 program are summarized in Table 26-1.



**Table 26-1. Recommended Work Plan and Budget, Santa Daniela Project**

**Stage 1: Data Confirmation, Drill Testing Known Targets, Regional Evaluation**

Activity or Concept	Month Start	Month End	Cost USD
Systematic surface sampling and assays	1	3	50,000
Regional geochemical survey and reconnaissance mapping	1	3	75,000
Diamond core drilling, 3,000 meters, Maiz Azul, La Cascada, X Structure targets. Cost of \$300 per m includes drilling, assay, earthworks, geology	3	6	900,000
Camp (house rental, meals, janitorial, cook, etc.)	1	6	42,000
Core warehouse and logging facilities	1	6	12,000
Vehicles	1	6	36,000
Vehicle fuel and maintenance	1	6	7,000
Travel (flights, hotels, meals)	1	6	40,000
Communication	1	6	6,000

**Grand Total Stage 1 USD**

**\$1,168,000**

**Stage 2: Resource Definition Drilling of Mineralized Zones Discovered in Stage 1**

Resource definition diamond core drilling, 10,000 meters. Cost of \$300 per m includes drilling, assay, earthworks, geology	7	12	3,000,000
Detailed geochemical surveys and reconnaissance mapping, targets discovered during Stage 1 exploration	7	12	75,000
Camp (house rental, meals, janitorial, cook, etc.)	7	12	42,000
Core warehouse and logging facilities	7	12	12,000
Vehicles	7	12	36,000
Vehicle fuel and maintenance	7	12	7,000
Travel (flights, hotels, meals)	7	12	40,000
Communication	7	12	6,000

**Grand Total Stage 2 USD**

**\$3,218,000**



## 27 REFERENCES

- Agnico Eagle Mines Ltd. (2020). *Agnico Eagle Mines Ltd. Mineral Reserves and Mineral Resources*. Retrieved from Agnico Eagle Mines Ltd.: [https://s21.q4cdn.com/374334112/files/doc\\_downloads/agnico\\_downloads/RnR-Tables/2020/RRTable-2020-Web-Final.pdf](https://s21.q4cdn.com/374334112/files/doc_downloads/agnico_downloads/RnR-Tables/2020/RRTable-2020-Web-Final.pdf)
- Alamos Gold Incorporated. (2020). *2019 Mineral Reserves and Resources*. Retrieved from Alamos Gold Inc.: [https://s24.q4cdn.com/779615370/files/doc\\_downloads/Alamos-2019-Reserve-Resource\\_FINAL.pdf](https://s24.q4cdn.com/779615370/files/doc_downloads/Alamos-2019-Reserve-Resource_FINAL.pdf)
- Albinson, T. N. (2001). Controls on formation of low-sulfidation epithermal deposits in Mexico: Constraints from fluid inclusion and stable isotope data. In *New Mines and Mineral Discoveries in Mexico and Central America*. Littleton: Society of Economic Geologists.
- ALS. (2020). *ALS Schedule of Services and Fees 2020 Geochemistry*. Retrieved from <https://www.alsglobal.com/en>
- Aranda, G. A. (2020, August 4). Informacion de Concesion de Agua con Titulo 02SON152958/09FMDA18, a summary of water rights held by Minera y Metalurgia Paika SA de CV for the Santa Daniela project. Hermosillo, Sonora, Mexico: Promocion Integral Minera.
- Aranda, G. A. (2020, August 4). Opinion Legal Concesion Minera Santa Daniela 1 Titulo 245008 y Legal Otorgamiento de Ocupacion Temporal Sobre El Ejido Mulatos, a summary of surface rights held by Minera y Metalurgia Paika SA de CV for the Santa Daniela project. Hermosillo, Sonora, Mexico: Promocion Integral Minera.
- Aranda, G. A. (2020, August 5). Opinion Legal Concesiones Mineras e Informe Preventivo, a summary of mineral rights and environmental permits held by Minera y Metalurgia Paika SA de CV for the Santa Daniela project. Hermosillo, Sonora, Mexico: Promocion Integral Minera.
- Arribas, A. J. (1995). Characteristics of high-sulfidation epithermal deposits and their relation to magmatic fluid. *Mineralogical Association of Canada Short Course Series*, v. 23 (pp. 419-454). Mineralogical Association of Canada.
- Ashley, R. 1. (1974). *Goldfield mining district. Nevada Bureau of Mines Geologic Report 19*, p 49-66. Nevada Bureau of Mines.
- Berger, B. a. (1989). Advances in the understanding of epithermal gold silver deposits with special reference to the western United States:. In *The Geology of Gold Deposits: the Perspective in 1988, Economic Geology Monograph 6*, Keays, W.R. Society of Economic Geologists.
- Bonham, H. J. (1988). Models for volcanic-hosted epithermal precious metal deposits. *Bulk minable precious metal deposits of the western United States Symposium Proceedings*, Schafer, R.W., Cooper, J.J., and Vikre, P.G. editors, Geological Society of Nevada. Reno: Geological Society of Nevada.
- Buchanan, L. (1981). Precious metal deposits associated with volcanic environments in the southwest:. In *Relation of tectonics to ore deposits in the Southern Cordillera*, Dickenson, W.R., and Payne, W.D., editors, *Arizona Geological Society Digest*, vol.14. Arizona Geological Society.



- Castellanos and Reyna. (2020). *Geologic map, Maiz Azul area, Municipio of Sahuaripa, Sonora, by Mario Castellanos and Francisco Reyna*. Rio Rico, AZ: Resource Geosciences Inc.
- Castellanos and Reyna. (2020). *Hydrothermal alteration map, Maiz Azul area, Municipio of Sahuaripa, Sonora, by Mario Castellanos and Francisco Reyna*. Rio Rico, AZ: Resource Geosciences Inc.
- Castellanos, M. (2020). Maiz Azul area, reporte geologia preliminar 29 Junio 2020, private report prepared for client. Hermosillo, Sonora: Resource Geosciences de Mexico SA de CV.
- Deen, J. A. (1994). The magmatic hydrothermal system at Julcani, Peru: Evidence from fluid inclusions and hydrogen and oxygen isotopes. *Economic Geology v. 89*, 1924-1938.
- Gray, J.E., and Coolbaugh, M.F. (1994). Geology and geochemistry of Summitville, Colorado: An epithermal acid-sulfate deposit in a volcanic dome. *Economic Geology v. 89*, 1906-1923.
- Gray, M. (2020). *Site Visit Report, M Gray, Maiz Azul target, Santa Daniela Project, Sonora, Mexico 11Jan2020*. Rio Rico, AZ: Resource Geosciences Inc.
- Hayba, D. B. (1985). Geologic, mineralogic, and geochemical characteristics of volcanic-hosted epithermal precious metal deposits. In *Reviews in Economic Geology v. 2* (pp. 129-167.).
- Heald, P. F. (1987). Comparative anatomy of volcanic-hosted epithermal deposits: acid-sulfate and adularia-sericite types. *Economic Geology v. 82* p. 1-26. *Economic Geology v. 82*, 1-26.
- Hedenquist, J. A. (1998). Evolution of an intrusion-centered hydrothermal system: Far Southeast Lepanto porphyry and epithermal Cu-Au deposits, Philippines. *Economic Geology v. 93*, 373-404.
- Lopez, D. G. (2017). *Exploracion aurifera con el metodo electromagnetico "controlled source audio magneto tellurics" (CSAMT) en areas diversas del proyecto Santa Daniela, Sonora*. Minera del Norte, Unidad Hercules, Altos Hornos de Mexico, Subdireccion de Exploracion.
- Melior Resources Inc. (2020, November 2). Melior Resources Inc. Enters into Letter of Intent in respect of Reverse Takeover with Ranchero Gold Corp. *Corporate News Release*. Toronto, Ontario, Canada: [www.sedar.com](http://www.sedar.com).
- Minera del Norte. (2018). *Santa Daniela, Sonora; Exploration Summary Powerpoint Presentation Nov 2018*. Minera del Norte, Subdireccion de Exploracion, AHMSA.
- Perry, S. (2020). *ASTER and Landsat 5 Satellite Imagery Processing and Alteration Mineral Modeling, Santa Daniela Property, Sonora Mexico*. Denver, CO: Perry Remote Sensing LLC.
- Petersen, U. N. (1977). Geology of the Julcani mining district, Peru. *Economic Geology v.72*, 931-949.
- Querol, F. (2020). *Maiz Azul Rpt 3 Rock Sample Alteration Analysis Report Dr Querol Apr2020*. Hermosillo: Resource Geosciences de Mexico SA de CV.
- Ransome, F. (1909). The association of alunite with gold in the Goldfield district. *Economic Geology v.2*, 667-692.
- Servicio Geologico Mexicano. (2000). *Carta Geologico-Minera 1:250,000 Tecoripa H12-12 Sonora y Chihuahua*. Pachuca, Mexico: Servicio Geologico Mexicano.



- Stoffregen, R. (1987). Genesis of acid-sulfate alteration and Au-Cu-Ag mineralization at Summitville, Colorado. *Economic Geology* v.82 , 1575-1591.
- Vikre, P. G. (1989). Ledge formation at the Sandstorm and Kendall gold mines, Goldfield, Nevada. *Economic Geology* v. 84, 2115-2138.



## 28 EFFECTIVE DATE AND SIGNATURE OF AUTHOR

I, Matthew Dean Gray, of Rio Rico, Arizona, USA, do hereby certify that:

1. This certificate is being delivered in connection with the technical report entitled “CSA NI 43-101 Technical Report on the Santa Daniela Gold Project, Municipios of Sahuaripa and Yecora, Sonora, Mexico” dated 24 August 2020 (the “Technical Report”) prepared for Melior Resources Inc.
2. I am employed as a geologist at Resource Geosciences Incorporated, (RGI) an independent consulting geosciences firm, whose address is 765A Dorotea Ct, Rio Rico, Arizona, 85648 USA.
3. I am a Certified Professional Geologist (#10688) with the American Institute of Professional Geologists since 2003 and my qualifications include experience applicable to the subject matter of this Technical Report. In particular, I am a graduate of the Colorado School of Mines (Ph.D., Geology with Minor in Mineral Economics, 1994; B.Sc., Geological Engineering, 1985) and the University of Arizona (M.Sc., Geosciences, 1988) and I have practiced my profession continuously since 1988. Most of my professional practice has focused on exploration metallic mineral deposits, the creation of resource models, and the economic development of gold and copper deposits.
4. I have read the definition of Qualified Person set out in National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“NI 43-101”) and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of NI 43-101.
5. I most recently completed a personal inspection of the Santa Daniela gold project on 8 January 2020 and I am aware of no information that constitutes a material change to the scientific and technical information about the property since that personal inspection.
6. I am responsible for the entirety of this Technical Report.
7. I am independent of Melior Resources Inc. and the vendor of the property, Ranchero Gold Inc. and its subsidiary Minera and Metalurgia Paika SA de CV, as defined in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Date: 24 August 2020

Signed and Sealed: \_\_\_\_\_  
Matthew D Gray, CPG # 10688





## Appendix 1 Legal Letters of Opinion, Mining Concession Titles, Surface Rights, Water Rights, Environmental Permits



PROMOCION INTEGRAL MINERA

05 de Agosto de 2020

### OPINIÓN LEGAL CONCESIONES MINERAS E INFORME PREVENTIVO

#### FUNDAMENTACIÓN

Como base para la presente opinión, se tomaron en cuenta todos y cada uno de las resoluciones, escrituras públicas, inscripciones, oficios y constancias diversas, emitidos por cada una de las autoridades competentes en la materia. A efecto de la complementación de esta opinión, se adjuntan los documentos de soporte y mediante los cuales, se acredita la legal casión de derechos de las siguientes concesiones mineras a favor de la empresa MINERA Y METALURGIA PAIKA, S.A. DE C.V.,

- TTULO- STA. DANIELA 1- 205008 VIGENCIA HASTA 01 FEB 2057-2301-2237 HAS
- TTULO- STA. DANIELA 2- 205009 VIGENCIA HASTA 01 FEB 2057-2892-2937 HAS
- TTULO- STA. DANIELA 3- 205010 VIGENCIA HASTA 01 FEB 2057-3947-2935 HAS
- TTULO- STA. DANIELA 4- 205011 VIGENCIA HASTA 01 FEB 2057-4720-4305 HAS
- TTULO- STA. DANIELA 5- 205012 VIGENCIA HASTA 01 FEB 2057-4912-5864 HAS
- TTULO- STA. DANIELA 6- 205013 VIGENCIA HASTA 01 FEB 2057-5234-0991 HAS
- TTULO- STA DANIELA - 225783 VIGENCIA HASTA 24 OCT 2055- 97 HAS
- TTULO- STA DANIELA - 225784 VIGENCIA HASTA 24 OCT 2055- 100 HAS

Misma casión, fue inscrita ante la Dirección General de Minas, donde la empresa MINERA Y METALURGIA PAIKA, S.A. DE C.V. queda como responsable de todas los derechos y obligaciones derivadas de las concesiones mencionadas anteriormente.

A la fecha y por lo que se refiere a los permisos en materia ambiental para llevar a cabo las actividades de exploración y explotación, se cuenta con el documento denominado INFORME PREVENTIVO otorgado a la Sociedad JIL WULATOS DE SONORA S.A. DE C.V. por la Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) con oficio DS-5G-UGA-IA-0239/2019, con fecha 10 de Mayo de 2019 y despachado con fecha 18 de Junio de 2019, mismo que tiene una vigencia de 24 meses el cual vence el día 17 de Junio de 2021, el cual se presentará ante la Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) un aviso de sustitución de titularidad a favor de MINERA Y METALURGIA PAIKA, S.A. DE C.V., quedando esta como titular y responsable de dicho tramite ambiental.



PROMOCION INTEGRAL MINERA

### OPINIÓN LEGAL

En términos de todo lo anterior vertido y una vez realizado el análisis correspondiente, mediante la presente opinión legal, nos permitimos manifestar que todos y cada uno los trámites realizados a efecto del legal otorgamiento de la Concesiones mineras presentadas anteriormente así como el Informe Preventivo ante SEMARNAT, fueron otorgados legalmente y mediante los procedimientos y trámites correspondientes para dichos efectos, encontrándose a la fecha, al corriente y en cumplimiento de sus obligaciones de acuerdo a la materia competente.

Derivado de todo lo anterior vertido y una vez llevada a cabo y registrada la casión de las concesiones mineras en los términos arriba expuestos, la titular de dicha concesión de igual forma pasara a ser la titular del Informe Preventivo, para la realización de actividades mineras, siendo esta MINERA Y METALURGIA PAIKA, S.A. DE C.V., debiéndose solicitar las constancias correspondientes emitidas por la Dirección General de Minas en donde se de fe y se constate la transmisión de la concesión minera y de la ocupación temporal correspondiente.

En relación al INFORME PREVENTIVO, nos permitimos confirmar que de acuerdo a la legislación de la materia en nuestro País, dicha sustitución a favor de MINERA Y METALURGIA PAIKA, S.A. DE C.V es permitida y se encuentra regulada, siendo procedente la misma.

La anterior opinión se realiza por parte del suscrito, en uso de las facultades derivadas de la práctica en materia de Derecho, encontrandome habilitado de acuerdo a las leyes vigentes para México.

ATENTAMENTE  
  
 LIC. GUSTAVO AGUILAR ARANIDA



PROMOCION INTEGRAL MINERA

04 de Agosto de 2020

**OPINION LEGAL CONCESION MINERA SANTA DANIELA 1 TITULO 245008 Y LEGAL OTORGAMIENTO DE OCUPACION TEMPORAL SOBRE EL EIDO MULATOS.**

La presente opinion legal se realiza respecto a:

- 1) La legal tenencia de la tierra por parte del Eido Mulatos, esto mediante la Resolución de Dotación de Tierras y la legal expedición y titularidad de la tierra a favor de los ejidatarios mediante la expedición de sus Certificado Parcelarios y;
- 2) El Legal otorgamiento y titularidad de la Ocupación Temporal y la vigencia de sus derechos a favor de su actual titular.

**FUNDAMENTACIÓN**

Como base para la presente opinion, se tomaron en cuenta todos y cada uno de las resoluciones, escrituras publicas, inscripciones, oficios y constancias diversas, emitidos por cada una de las autoridades competentes en la materia; A efecto de la complementación de esta opinion, se adjuntan los documentos de soporte y mediante los cuales, se acredita la legalidad de la realización de los Trámites tendientes a la titularidad por parte de **ILC GRUPO MULATOS DE SONORA SA DE CV**, para la explotación y explotación de la **CONCESION MINERA SANTA DANIELA 1 TITULO 245008** y la legal posesión de las tierras afectadas en Ocupación Temporal.

La presente ocupación temporal tiene como vigencia la misma que la concesión minera que ampara, es decir hasta el 01 de Febrero de 2057, la cual le permite realizar obras y trabajos de exploración, explotación y beneficio de minerales o sustancias sujetas a las disposiciones de la ley minera.

Este otorgamiento genera una obligación de pago anual al ejido mulatos por la cantidad de \$100,078,000 MXN.



PROMOCION INTEGRAL MINERA

Considerando que a la fecha la **CONCESION MINERA SANTA DANIELA 1 TITULO 245008** fue cedida a favor de **MINERA Y METALURGIA PAIKA, S.A. DE CV**, la ocupación temporal otorgada a favor de dicha empresa y por tratarse de un accionario a la concesión minera pasa a nombre del titular de la **CONCESION MINERA SANTA DANIELA 1 TITULO 245008**, esto es a favor de **MINERA Y METALURGIA PAIKA, S.A. DE CV**.

**OPINION LEGAL**

En términos de todo lo anterior vertido y una vez realizado el análisis correspondiente, mediante la presente opinion legal, nos permitimos manifestar que todos y cada uno los trámites realizados a efecto del legal otorgamiento de la Concesión minera **SANTA DANIELA 1 TITULO 245008** y de la Ocupación Temporal constituida sobre parte de los terrenos propiedad del **EIDO MULATOS**, fueron otorgados legalmente y mediante los procedimientos y trámites correspondientes para dichos efectos, encontrándose a la fecha, al corriente y en cumplimiento de sus obligaciones de acuerdo a la materia competente.

Derivado de todo lo anterior vertido y una vez llevada a cabo y registrada la cesión de la concesión minera en los términos arriba expuestos, la titular de dicha concesión de igual forma pasa a ser la titular de la ocupación temporal para la realización de actividades mineras, siendo esta **MINERA Y METALURGIA PAIKA, S.A. DE CV**.

La anterior opinion se realiza por parte del suscrito, en uso de las facultades derivadas de la práctica en materia de Derecho, encontrandome habilitado de acuerdo a las leyes vigentes para México.

ATENTAMENTE

LIC. GUSTAVO AGUILAR ARANDA



PROMOCION INTEGRAL MINERA

04 de Agosto de 2020

**INFORMACION DE CONCESION DE AGUA CON TITULO 02SON152958/09FMDA18**

La concesión emitida por la Comisión Nacional del Agua tiene un volumen de 3,000,000 metros cúbicos de tipo Sub suelo y se emitieron a nombre de la empresa JLL Grupo Mulatos el 04 de Julio de 2018.

Posteriormente el 17 de Julio de 2020 se celebró un contrato de cesión de derechos de agua donde JLL GRUPO MULATOS le cede los derechos y obligaciones del presente título a la empresa MINERA METALURGIA PAIKA, S.A. DE C.V. quedando esta última como la actual titular de la concesión de agua.

Por medio de ese contrato JLL Grupo Mulatos, cede y traspasa de manera irrevocable, definitiva y sin limitación alguna todos los derechos derivados y conferidos por COMISION NACIONAL DEL AGUA mediante título de concesión número: 02SON152958/09FMDA18 y MINERA METALURGIA PAIKA, S.A. DE C.V. asume todas las obligaciones a cargo como nuevo titular de la concesión

ATENTAMENTE  
  
 LIC. GUSTAVO AGUILAR ARANDA



Appendix 2 Mining Concession Titles

EXP. NUM. 4/008-00861

ESTADOS UNIDOS MEXICANOS

SECRETARIA DE ECONOMIA  
 COORDINACION GENERAL DE MINERIA  
 DIRECCION GENERAL DE REGULACION MINERA

ORIGINAL

**TITULO DE CONCESION MINERA NUMERO 245008**

NOMBRE DEL LOTE  
 STA. DANIELA 1  
 AGENCIA  
 HERMOSILLO, SONORA  
 UBICACION DEL TITULO  
 DEL 18 DE AGOSTO DEL 2010 AL 1 DE FEBRERO DEL 2097

El Ejecutivo Federal, por conducto de la Secretaría de Economía, con fundamento en los artículos 27 párrafo sexto de la Constitución Política de los Estados Unidos Mexicanos; 34 fracción XXIX de la Ley Orgánica de la Administración Pública Federal; 7 fracción VI, 10 párrafo primero, 15 y 19 de la Ley Minera y los correspondientes de su Reglamento, expide el presente TÍTULO DE CONCESIÓN MINERA, sin perjuicio de tercero.

**DATOS DE LA CONCESION MINERA**

NUMERO DE TITULO:	245008
TITULOS ANTERIORES :	228792 (STA DANIELA )
TITULAR O TITULARES:	GRUPO MINERAS DE SONORA, S.A. DE C.V. (100 %)
NOMBRE DEL LOTE:	STA. DANIELA 1
SUPERFICIE:	2301,2237 HRS.
MUNICIPIO Y ESTADO:	SAHUARIPA, SONORA









EXF. NUM. 4/003-00551

ESTADOS UNIDOS MEXICANOS

SECRETARIA DE ECONOMIA  
 COORDINACION GENERAL DE MINERIA  
 DIRECCION GENERAL DE REGULACION MINERA

ORIGINAL

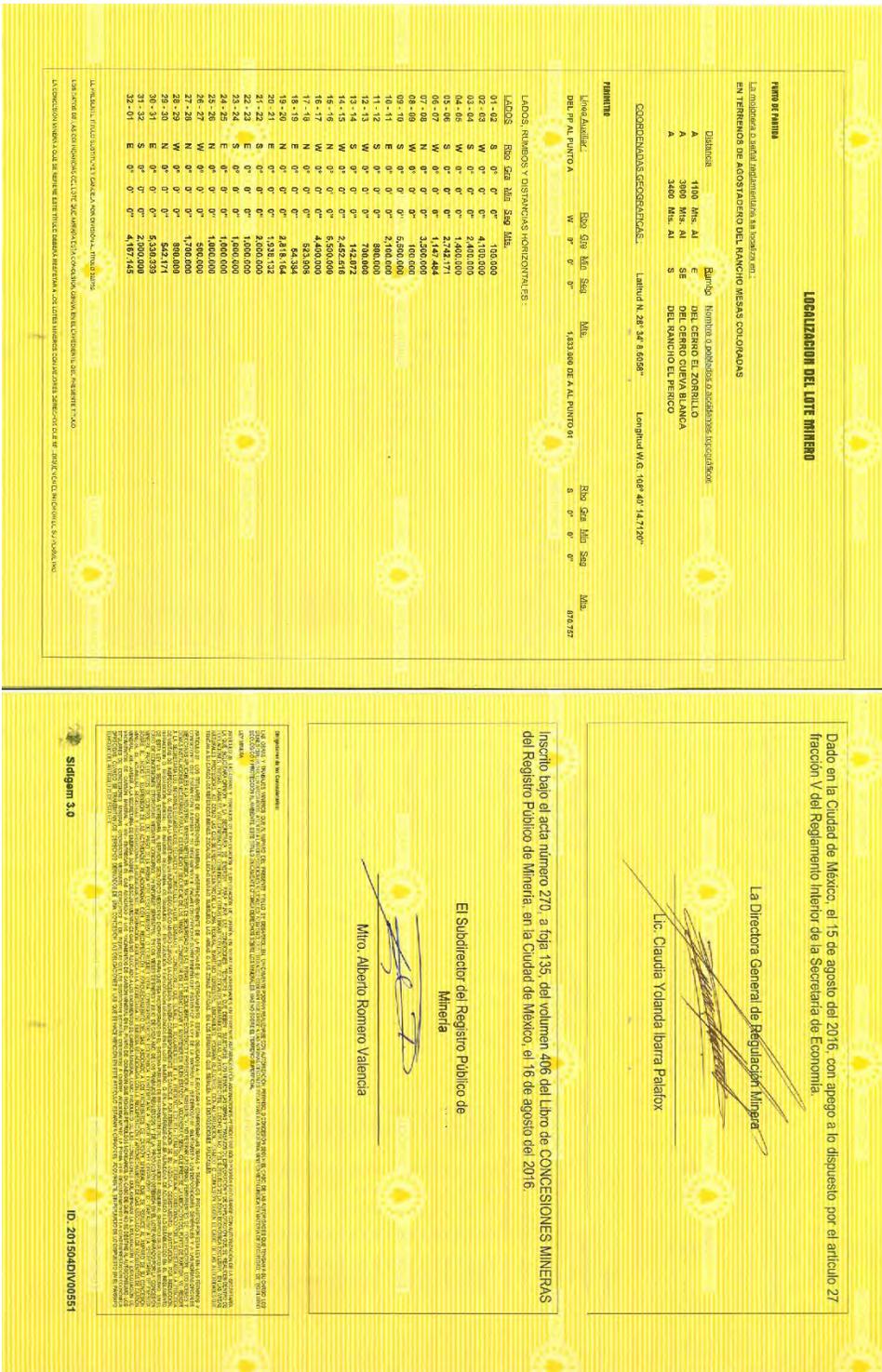
**TITULO DE CONCESION MINERA NUMERO 245010**

NOMBRE DEL LOTE: STA. DANIELA 3  
 AGENCIA: HERMOSILLO, SONORA  
 VIGENCIA DEL TITULO: DEL 16 DE AGOSTO DEL 2010 AL 1 DE FEBRERO DEL 2027

El Ejecutivo Federal, por conducto de la Secretaría de Economía, con fundamento en los artículos 27 párrafo sexto de la Constitución Política de los Estados Unidos Mexicanos; 34 fracción XXIX de la Ley Orgánica de la Administración Pública Federal; 7 fracción VI, 10 párrafo primero, 15 y 19 de la Ley Minera y los correspondientes de su Reglamento, expide el presente TITULO DE CONCESION MINERA, sin perjuicio de tercero.

**DATOS DE LA CONCESION MINERA**

NOMBRE DEL LOTE:	STA. DANIELA 3
SUPERFICIE:	3897.2935 HAS.
MUNICIPIO Y ESTADO:	VEGUA, SONORA SAHUARIPA, SONORA
NUMERO DE TITULO:	245010
TITULOS ANTERIORES:	22972 ( STA DANIELA )
TITULAR O TITULARES:	DEL GRUPO MINAJOS DE SONORA, S.A. DE C.V. (100 %)





EXE. NUM. 4/003-00551



SECRETARIA DE ECONOMIA  
 COORDINACION GENERAL DE MINERIA  
 DIRECCION GENERAL DE REGULACION MINERA

**TITULO  
 DE  
 CONCESION MINERA  
 NUMERO 245011**

NOMBRE DEL LOTE  
**S/A. DANIELA 4**  
 AGENCIA  
**HERMOSILLO, SONORA**  
 UBICACION DEL TITULO  
**DEL 10 DE AGOSTO DEL 2010 AL 1 DE FEBRERO DEL 2027**

ORIGINAL

---

**EL Ejecutivo Federal, por conducto de la Secretaría de Economía, con fundamento en los artículos 27 párrafo sexto de la Constitución, Política de los Estados Unidos Mexicanos: 34 fracción XXX de la Ley Orgánica de la Administración Pública Federal; 7 fracción VI, 10 párrafo primero, 15 y 19 de la Ley Minera y los correspondientes de su Reglamento, expide el presente TÍTULO DE CONCESION MINERA, sin perjuicio de tercero.**

**DATOS DE LA CONCESION MINERA**

NOMBRE DEL LOTE:	S/A. DANIELA 4
SUPERFICIE:	4270.4389 HRS.
MUNICIPIO Y ESTADO:	HERMOSILLO, SONORA
NOMBRE DE TITULAR:	245011
TITULOS ANTERIORES:	228792 ( S/A DANIELA )
TITULAR O TITULARES:	ALL GROUP HOLDINGS DE SONORA, S.A. DE C.V. ( 100 % )



**LEGALIZACIÓN DEL LOTE MINERO**

**PRIMERA PARTE**

La industria a nivel registral se localiza en:  
**EN TERREMOS DE AGOSTO DE AÑO DEL RANCHO MIERAS CON GRUPOS**

**DISTANCIA**

A	1100	Mts.	AL	Rancho	Nombre o posesión o secciones topográficas
B	3000	Mts.	SE		DEL CERRO DE ZORILLO
A	2000	Mts.	AL		DEL RANCHO EL FINCO

**COORDENADAS GEOGRÁFICAS:** Latitud N. 24° 31' 8.899" Longitud W.G. 109° 49' 14.129"

**PRECISIÓN**

Lista Anular	Rancho	Sea	Min	Seg	Mts.				
DEL PR. AL PUERTO A	E	0'	0'	0"	1/4 de hora de S.M. Puerto 1				
					N	0'	0'	0"	2423243

**LAZOS, RUMBOS Y DISTANCIAS HORIZONTALES:**

LAZOS	Rancho	Sea	Min	Seg	Mts.
1-2	W	0'	0'	0"	3,000.000
2-3	S	0'	0'	0"	3,200.000
3-4	E	0'	0'	0"	3,200.000
4-5	S	0'	0'	0"	3,700.000
5-6	E	0'	0'	0"	6,000.000
6-7	N	0'	0'	0"	6,000.000
7-8	W	0'	0'	0"	3,600.000
8-1	S	0'	0'	0"	9,150.57

El presente tiene la intención de concretar la venta de terreno, en el lote 37 que...

Los datos de la calidad catastral del lote de superficie de 3,000.000 m<sup>2</sup>...

La industria a nivel registral se localiza en el terreno que se describe en el expediente de expediente...

El Subdirector del Registro Público de  
 Mieras  
 Mtro. Alberto Romero Valencia

La Directora General de Regulación Minera  
 Lic. Claudia Yolanda Ibarra Palafox

Dado en la Ciudad de México, el 15 de agosto del 2016, con apego a lo dispuesto por el artículo 27 fracción V del Reglamento Interior de la Secretaría de Economía.

Inscrito bajo el acta número 271, a foja 136, del volumen 406 del Libro de CONCESIONES MINERAS del Registro Público de Minería, en la Ciudad de México, el 16 de agosto del 2016.

Distrito de la Secretaría de Economía

El presente acta se inscribió en el Libro de CONCESIONES MINERAS del Registro Público de Minería, en la Ciudad de México, el 16 de agosto del 2016.

ID: 201504DV00531



ERF. NUM. 4/003-00551



**SECRETARIA DE ECONOMIA  
 COORDINACION GENERAL DE MINERIA  
 DIRECCION GENERAL DE REGULACION MINERA**

**TITULO  
 DE  
 CONCESION MINERA  
 NUMERO 245012**

NOMBRE DEL LOTE:  
**STA. DANIELA 6**

SUPERFICIE:  
**4972.8954 Hec.**

MUNICIPIO Y ESTADO:  
**HERNANDEZ, SONORA**

VIGENCIA DEL TITULO:  
**DEL 10 DE AGOSTO DEL 2010 AL 1 DE FEBRERO DEL 2027**

ORIGINAL

---

**DATOS DE LA CONCESION MINERA**

El Ejecutivo Federal, por conducto de la Secretaría de Economía con fundamento en los artículos 27 párrafo sexto de la Constitución Política de los Estados Unidos Mexicanos; 34 fracción XXIX de la Ley Orgánica de la Administración Pública Federal; 7 fracción VI, 10 párrafo primero, 15 y 19 de la Ley Minera y los correspondientes de su Reglamento, expide el presente TITULO DE CONCESION MINERA, sin perjuicio de tercero.

NUMERO DE TITULO: **245012**

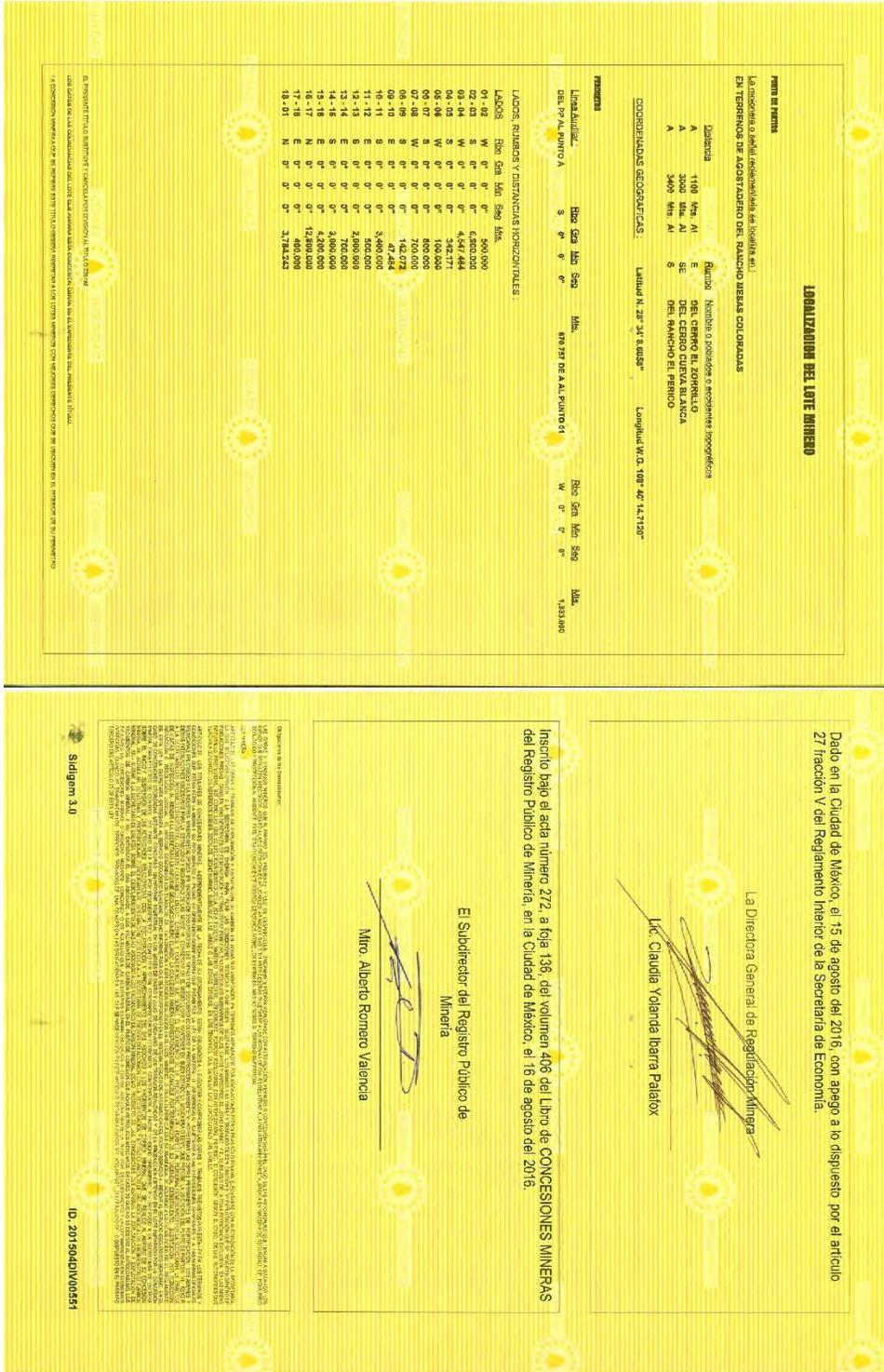
TITULOS ANTERIORES: **229792 ( STA DANIELA 1 )**

TITULAR O TITULARES: **DEL GRUPO MINERAS DE SONORA, S.A. DE C.V. ( IND 30 )**

NOMBRE DEL LOTE: **STA. DANIELA 6**

SUPERFICIE: **4972.8954 Hec.**

MUNICIPIO Y ESTADO: **HERNANDEZ, SONORA**





ERF. NUM. 4/003-01951



ESTADOS UNIDOS MEXICANOS

SECRETARIA DE ECONOMIA  
 COORDINACION GENERAL DE MINERIA  
 DIRECCION GENERAL DE REGULACION MINERA

**TITULO DE CONCESION MINERA  
 NUMERO 245013**

NOMBRE DEL LOTE  
**S/A. DANIELA 6**

ABERGIA  
**HERMOSILLO, SONORA**

VICEREA DEL TITULO  
**DEL 18 DE AGOSTO DEL 2016 AL 1 DE FEBRERO DEL 2017**

ORIGINAL

---

**DATOS DE LA CONCESION MINERA**

El Ejecutivo Federal, por conducto de la Secretaría de Economía, con fundamento en los artículos 27 párrafo sexto de la Constitución Política de los Estados Unidos Mexicanos; 34 fracción XXIX de la Ley Orgánica de la Administración Pública Federal; 7 fracción VI, 10 párrafo primero, 15 y 19 de la Ley Minera y los correspondientes de su Reglamento, expide el presente TITULO DE CONCESION MINERA, sin perjuicio de tercero.

NOMBRE DEL LOTE:	S/A. DANIELA 6
SUPERFICIE:	2496.0891 Has.
MUNICIPIO Y ESTADO:	YERENA, SONORA SAHUARIPA, SONORA
NUMERO DE TITULO:	245013
TITULOS ANTERIORES :	228792 (S/A DANIELA 1)
TITULAR O TITULARES:	DL GRUPO MINEROS DE SONORA, S.A. DE C.V. (100 %)





Appendix 3 Temporary Occupation Permit, Mulatos Ejido

CORRFO CERTIFICADO CON ACUSE DE RECIBO

Oficio No.60.- 13379 /2017  
Asunto: Se emite resolución de Ocupación  
Temporal  
Ciudad de México, 11 DIC 2017

JLL GRUPO MULATOS DE SONORA, S.A. de C.V.

Apoderado: C. Jesús Oscar Peraza Inda  
Av. Doctor Paliza No. 101,  
Col. Centenario,  
Hermosillo, Sonora, C.P. 83300.  
Presente.

EJIDO "MULATOS"  
Presidente Comisariado Fielde:  
C. Rafael Valdez Quintana  
Secretario: C. Rafael Grigora Rascon  
Tesorero: C. Emmanuel Hurtado Rascon  
Plazo de Avda No. 548 Col. Baniño Juárez,  
Hermosillo, Sonora, C.P. 83110.  
Presente.

Se hace referencia a la Solicitud de Constitución de Ocupación Temporal, recibida el 07 de marzo de 2017 en la Unidad de Correspondencia de la Dirección General de Minas, por medio de la cual el C. Jesús Oscar Peraza Inda, como representante legal de la empresa JLL GRUPO MULATOS DE SONORA, S.A. DE C.V. titular del lote número denominado "STA. DANIELA 1ª" con título número 245008, solicitó la autorización por parte de esta autoridad administrativa con el objeto de realizar obras y trabajos de exploración, explotación y beneficio de minerales o sustancias sujetos a las disposiciones de la Ley Minera y su Reglamento, obras generales de infraestructura y/o instalaciones, servicios o cualquier obra para la explotación, explotación y beneficio de minerales o sustancias sujetos a las disposiciones de la Ley Minera y su Reglamento. El uso que se le dará al terreno será de minado subterráneo y/o a cielo abierto, obras y trabajos generales para la explotación, explotación y beneficio de minerales o sustancias sujetos a las disposiciones de la Ley Minera y su Reglamento, por el término de su vigencia mediante la cual pretende afectar una superficie de 307,7703 hectáreas, propiedad del Ejido "Mulatos" en el municipio de Sahuaripa Sonora, tramitado bajo el expediente número 323.0/17-04.

Al respecto, esta Secretaría a través de la Dirección General de Minas, con fundamento en el artículo 8º de la Constitución Política de los Estados Unidos Mexicanos, procede a emitir resolución fundada y motivada, en los términos que a continuación se expresan:

RESULTANDOS

I.- Con fecha 15 de agosto de 2016, la Secretaría de Economía emitió a favor de la empresa JLL GRUPO MULATOS DE SONORA, S.A. DE C.V., el título de concesión minera de explotación número 245008, correspondiente al lote número denominado "STA. DANIELA 1ª" con una superficie de 2,301,2237 hectáreas, ubicadas en los Municipios de Yecora y Sahuaripa Sonora, con vigencia del 16 de agosto de 2016 al 01 de febrero de 2057.

II.- Con fecha 07 de marzo de 2017, el C. Jesús Oscar Peraza Inda, como representante legal de la empresa JLL GRUPO MULATOS DE SONORA, S.A. DE C.V., titular del lote número denominado "STA. DANIELA 1ª" con título número 245008, presentó en la Unidad de Correspondencia de la Dirección General de Minas una solicitud de ocupación temporal, con el objeto de realizar obras y trabajos de exploración, explotación y beneficio de minerales o sustancias sujetos a las disposiciones de la Ley Minera y su Reglamento, por el término de su vigencia mediante la cual pretende afectar una superficie de 307,7703 hectáreas, propiedad del Ejido Mulatos en el municipio de Sahuaripa Sonora.

III.- La solicitud de ocupación temporal a que se refiere el precedente anterior fue acompañada del avalúo efectuado por el Instituto de Administración y Avalúos de Bienes Nacionales (INDAVAL), con número general A40594-2NA, seccional No. 01-17-29 de fecha 24 de febrero de 2017, en el que se determinó como monto de indemnización anual la cantidad de \$100,678,800 (CIENTO MIL SEISCIENTOS SETENTA Y OCHO MIL OCHOCIENTOS MIL NOVECIENTOS).

IV.- Por memorando con número de referencia IM.22/082 de fecha 08 de marzo de 2017, se solicita a la Dirección de Cartografía y Concesiones Mineras dictamen técnico.

V.- Por memorando con número de referencia 610/4136 de fecha 15 de mayo de 2017 el Director de Cartografía y Concesiones Mineras, emitió dictamen técnico.

VI.- Con fecha 22 de mayo de 2017, el Director del Registro Público de Minería y Derechos Mineros en ausencia de la Dirección General de Minas, emitió el oficio 610-02717/2017, mediante el cual se emitió a la Subdirección de Minería en la Delegación Federal de Sonora, la solicitud de ocupación temporal de referencia y anexos, a fin de que se realice el procedimiento previsto en las funciones 1 al VII del artículo 52 del Reglamento de la Ley Minera.

VII.- Mediante oficio número 1168/2017-4558 de 04 de agosto de 2017, emitido por el Subdirector de Minas en la Delegación Federal en Sonora, se dio vista con la solicitud de ocupación temporal y demás anexos acompañados a la misma, a los C. Rafael Valdez Quintana presidente del Comisariado Fielde en ese momento, Secretario: C. Rafael Grigora Rascon y Tesorero: C. Emmanuel Hurtado Rascon, a fin de que manifestaran lo que a su interés legal conveniera dentro de un plazo de 15 días hábiles, conforme a lo dispuesto por el artículo 52, fracción I del Reglamento de la Ley Minera, mismo que fue notificado el día 14 del mismo mes y año al C. Emmanuel Hurtado Rascon.



VIII.- Por oficio número 146.8/2017-4710 de fecha 06 de septiembre de 2017, el Subdirector de Minas en la Delegación Federal de Sonora, le notificó a la empresa JIL GRUPO MULTIAIOS DE SONORA, S.A. DE C.V., por conducto de su representante legal el curso de la visita de inspección, otorgándole un plazo de cinco días hábiles para que cubriera el monto del mismo, oficio que fue notificado el día 07 del mismo mes y año.

IX.- Con escrito de fecha 11 de septiembre de 2017, la empresa JIL GRUPO MULTIAIOS DE SONORA, S.A. DE C.V. por conducto de su representante legal exhibió el pago de los derechos correspondientes a la visita de inspección.

X.- Mediante oficio número 610/5929/2017 y 610/5930/2017 ambos de fecha 21 de septiembre de 2017, el Subdirector de Minas en Sonora, en ausencia de la Dirección General de Minas, designó al Ing. Armando Ramos Buitos y al licenciado José Ramos Alvará, inspectores para que llevaran a cabo la visita de inspección, en el lugar, día y hora señalados.

XI.- Así mismo por oficio número 610/5927/2017, de fecha 21 de septiembre de 2017, el Subdirector de Minas en Sonora, le notificó a la empresa JIL GRUPO MULTIAIOS DE SONORA, S.A. DE C.V. por conducto de su representante legal el lugar, día y hora para llevar a cabo la visita de inspección.

XII.- Mediante oficio número 610/5928/2017, de fecha 21 de septiembre de 2017, el Subdirector de Minas en Sonora, le notificó al EMIPO "MULTIAIOS," Presidente Comisariado, Rafael C. Rafael Vázquez Quintana, Secretario C. Rafael Grifón Rascon, Tesorero C. Emmanuel Humada Rascon, el lugar, día y hora para la realización de la visita de inspección.

XIII.- Con fecha 03 de octubre de 2017, se llevó a cabo la visita de inspección con el Ing. Armando Ramos Buitos, el solicitante representante legal de la empresa JIL GRUPO MULTIAIOS DE SONORA, S.A. DE C.V., Ing. Angel Rodolfo Córdoba Bustamante y con la asistencia de los registros las CC, José Luis Sánchez Palana y José Ramos Alvará, sin que se presentara persona alguna en representación del Ejido "Solitarios".

XIV.- Por oficio número 610/7892/2017 y 610/7893/2017 ambos de fecha 03 de noviembre de 2017, con los escritos, el Subdirector de Minas en Sonora, en ausencia de la Dirección General de Minas, designó al Ing. Armando Ramos Buitos y al licenciado José Ramos Alvará, para que llevaran a cabo la segunda visita de inspección, en el lugar, día y hora señalados.

XV.- Mediante oficio número 610/7990/2017, de fecha 03 de noviembre de 2017, el Subdirector de Minas en Sonora, en ausencia de la Dirección General de Minas le notificó a la empresa JIL GRUPO MULTIAIOS DE SONORA, S.A. DE C.V., por conducto de su representante legal el lugar, día y hora para llevar a cabo la visita de inspección.

XVI.- Mediante oficio número 610/7891/2017, de fecha 03 de noviembre de 2017, el Subdirector de Minas en Sonora, en ausencia de la Dirección General de Minas, le notificó al EMIPO "MULTIAIOS," el lugar, día y hora para la realización de la visita de inspección.

XVII.- El 13 de noviembre del 2017, se llevó a cabo la segunda visita de inspección con la asistencia del Ing. Armando Ramos Buitos, el solicitante representante legal de la empresa JIL GRUPO MULTIAIOS DE SONORA, S.A. DE C.V., Ing. Angel Rodolfo Córdoba Bustamante y con la asistencia de los registros las CC, José Luis Sánchez Palana y José Ramos Alvará, sin que se presentara persona alguna en representación del Ejido "Solitarios".

XVIII.- Con oficio número 146.8/2017-3019 de fecha 23 de noviembre de 2017, el ingeniero Armando Ramos Buitos rindió el DICTAMEN TÉCNICO referente a la solicitud de ocupación temporal relativo al expediente 5230/17-04, en el cual emitió la siguiente

CONCLUSIÓN:

"Tomando en consideración que se ha cumplido con lo ordenado por el Director de Registro Público de Minería y Derechos Mineros Mtro. MARIO DEL CARMO ALVARADO, según consta en los artículos 63, 64, 65, 66, 67 y 68 de la Ley Federal de Procedimiento Administrativo, otorgándole el consentimiento de inscripción de mineros para manifestar lo que a su respecto el director Comisariado de mineros para manifestar lo que a JIL GRUPO MULTIAIOS DE SONORA S.A. DE C.V. con respecto a los registros técnicos y legales necesarios que justifican con respecto a la explotación de mineros para llevar a cabo obras y trabajos de exploración, explotación y beneficio de minerales o sistemas sujetos a las disposiciones de la Ley de Minas y su Reglamento. Otras generales de infraestructura y/o instalaciones, servicios o cualquier otra para la explotación, explotación y beneficio de mineros de carbón u otros minerales o sistemas sujetos a la Ley de Minas y su Reglamento. Trabajos generales para la explotación, explotación y beneficio de mineros de carbón u otros minerales o sistemas sujetos a la Ley de Minas y su Reglamento. El uso que se le dará al terreno será de minero subterráneo y/o cielo abierto, obras y trabajos generales para la explotación, explotación y beneficio de mineros de carbón u otros minerales o sistemas sujetos a la Ley de Minas y su Reglamento. (sic) se recomienda otorgar LA OCUPACION TEMPORAL, solicitada por la empresa, tal y como lo dispone el artículo 19, fracción IV de la Ley de Minas"

XIX.- Mediante oficio número 146.8/2017-3020 de fecha 23 de noviembre de 2017, recibiendo el 28 del mismo mes y año en la Unidad de Correspondencia de la Dirección General de Minas, el Subdirector de Minas en Sonora, remite el expediente de ocupación temporal que nos ocupa.





- Obtener la exploración, ocupación temporal o constitución de escrituramiento de los terrenos indispensables para llevar a cabo las obras y trabajos de exploración, explotación, explotación y beneficio, así como para el depósito de cerros, talas, secorias y erosivos, al igual que constituir servidumbres siberrienas de paso a través de lotes mineros.

- Aprovechar las aguas provenientes del laboreo de las minas para la explotación o explotación y beneficio de los minerales o sustancias que se obtengan y el uso doméstico del personal empleado en las mismas.
- Obtener preferentemente concesión sobre las aguas de las minas para cualquier uso diferente a los señalados en la fracción anterior en los términos de la ley de la materia.
- Tramitar su inscripción o los derechos establecidos por las fracciones I a VI anteriores a personas legalmente capacitadas para obtenerlos.
- Redactar, dividir e identificar la superficie de los lotes que amparan, o unificarla con la de otras concesiones colindantes.
- Desistirse de las mismas y de los derechos que de ellas derivan.
- Aceptar o no más de ellas para efectos de comprobar obras y trabajos previstos por esta Ley y de rendir informes estadísticos y técnicos.
- Solicitar correcciones administrativas o duplicados de sus títulos.
- Obtener la prórroga en las concesiones mineras por igual término de vigencia, de acuerdo con lo previsto por la Ley Minera.

Así mismo el artículo 52, fracción V del Reglamento de la Ley Minera, señala:

"Artículo 52.- Cuando la solicitud de ocupación temporal o servidumbre no venga acompañada del documento con que se establece fehacientemente la conformidad del afectado o se trate de expropiaciones, la Secretaría deberá el procedimiento administrativo de acuerdo a lo siguiente:

V.- Si el afectado no se presentare a la vista, se le citará una segunda vez, aprehensible que en caso de que no se presente a la misma vista, se tendrá por acreditada la necesidad de la afectación."

Del precepto legal transcrito se desprende de que, si la parte afectada no se presentare a la vista, se le citará para una segunda vista y si en esta última no se presentare se tendrá por acreditada la necesidad de la afectación.

Conforme lo anterior, es claro que si la superficie de 307.7703 hectáreas, propiedad del Ejido Mulatos en el municipio de Hermosillo Sonora, se ubica dentro de la concesión minera del lote denominado "STA. DANIELA", con título 245008, expedido a favor la empresa J.L. GRUPO MULTATOS DE SONORA, S.A. DE C.V., tal y como se aparece del plano exhibido por el solicitante, mismo que en ningún momento el atestado contrario, omitió hacer manifestación en cuanto a la vista de la ocupación y no se presentó a ninguna de las vistas de inspección, se tiene por acreditada la necesidad de ocupar temporalmente el terreno propiedad del Ejido "Mulatos", ya que solo de esa forma el concesionario podrá realizar los trabajos de exploración, explotación, así como de disponer de los productos del mismo, tal y como lo previene el artículo 19 de la Ley Minera.

Por lo anterior, de acuerdo con lo dispuesto en los artículos 19 fracción IV y 52 fracción V del Reglamento de la Ley Minera, es procedente la ocupación temporal de la superficie de 307.7703 hectáreas del terreno propiedad del Ejido "Mulatos", en atención que dicha superficie se ubica dentro de la concesión minera del lote denominado "STA DANIELA", con título 245008, expedido a favor de la empresa J.L. GRUPO MULTATOS DE SONORA, S.A. DE C.V.

**TERCERO.** De conformidad con lo señalado por el artículo 52 del Reglamento de la Ley Minera vigente, y tomando en consideración el estatus técnico, las pruebas aportadas, y las constancias que integran el expediente administrativo con motivo de la solicitud de ocupación temporal presentada el 07 de marzo de 2012, y dentro de las condiciones antes mencionadas, es procedente declarar constituida a favor de la empresa J.L. GRUPO MULTATOS DE SONORA, S.A. DE C.V., titular de la concesión minera "STA. DANIELA I", título 245008, la ocupación temporal solicitada.

Por lo antes expuesto y fundado, se de resolverse y se resuelve:

**RESOLUTIVOS**

**PRIMERO.** Es procedente declarar constituida a favor de la empresa J.L. GRUPO MULTATOS DE SONORA, S.A. DE C.V., titular de la concesión minera "STA. DANIELA I", título 245008 la ocupación temporal de la superficie de 307.7703 hectáreas de terreno propiedad del Ejido "Mulatos", ubicado en el Municipio de Sahuaripa, Sonora, en los términos establecidos, y por el término de la vigencia de la concesión minera de referencia.





SE  
 SECRETARÍA DE ECONOMÍA

Subsecretaría de Minería  
 Dirección General de Minas  
 Dirección de Registro Público de Minería y Derechos Mineros  
 Subsecretaría del Registro Público de Minería



921/2017

Registrado bajo el número 34 del volumen VII del Libro de Ocupaciones Temporales y Servidumbres.

Ciudad de México, 20 de diciembre de 2017.

EL SUBDIRECTOR DEL REGISTRO PÚBLICO DE MINERÍA

  
 MTRO. ALBERTO ROMERO VALENCIA



IDEL: SDM013523  
 SDM35343  
 ARV/fvg





SE  
 SECRETARÍA DE ECONOMÍA

**ACTA DE NOTIFICACION**

En Naucalpan de Juárez, siendo las once horas con quince minutos del día veinte de diciembre del dos mil diecisiete, se presentó en el primer piso de las oficinas que ocupa la Dirección del Registro Público de Minería y Derechos Mineros en el inmueble ubicado en la Calle Puente de Teacmahalco, No. 6, Colonia Lomas de Teacmahalco, Naucalpan de Juárez, Código Postal 53950, en esta ciudad, el C. Mario Robles Rios, quien se identifica con credencial de elector con fotografía número 6014012017936, expedida por el Instituto Federal Electoral, documento que se ingresó al interesado previa constancia que se dejó en el expediente, en su carácter de persona autorizada para recibir y oír todo tipo de modificaciones, personalidad que tiene acreditada en el expediente con el que se actúa, a quien en este acto se le notifica y entrega el original del oficio número 610-15679/2017 de fecha 11 de diciembre del 2017, con firma autógrafa del Director del Registro Público de Minería y Derechos Mineros, en ausencia de la Directora General de Minas, para todos los efectos legales a que haya lugar.

Atentó la presente diligencia, el Lic. José Luis Caribay Castañeda, Subdirector de Derechos Mineros, quien se identifica con credencial número L8306, expedida por la Secretaría de Economía, con una vigencia del 1 de enero al 31 de diciembre del 2017, documento que se le mostro al compareciente sin realizar objeción alguna.

\_\_\_\_\_  
 C. MARIO ROBLES RIOS

\_\_\_\_\_  
 LIC. JOSE LUIS CARIBAY CASTANEDA





**Resource Geosciences Incorporated**  
**CSA NI 43-101 Technical Report on the Santa Daniela Gold Prospect, Municipio of Sahuaripa, Sonora**



Delegación Federal de SEMARNAT  
 en el estado de Sonora  
 Subdelegación de Gestión  
 Oficina: DS-SC-UCA-IA-0239/2019  
 Batacóna: 2616-0200/419  
 Clave de Proyecto: 2650219M0023

Hermosillo, Sonora, a 10 de mayo del 2019.

restauración forestal, en su caso. El programa deberá contener el calendario de actividades, incluyendo las correspondientes al mantenimiento. Los sitios a restaurar serán aquellos afectados por las actividades realizadas, excepto aquellos ocupados por obras que tendrían uso futuro, debidamente justificado, en cuyo caso como medida de compensación se deberá restaurar alguna área vecina.

4.1.19 Que en caso de que alguna área se requiera desmontar, previa a dicha actividad se deberán identificar las especies arbóreas que se conservarán in situ o se integran al diseño de áreas verdes, así como las especies biológicas de especial interés susceptibles de trasplante y aquellas con algún tipo de valor regional o biológico.

4.1.22 Una vez realizada la restauración se presentará a la Secretaría de Medio Ambiente y Recursos Naturales o a su Delegación Federal correspondiente un reporte en el que se manifiesten las condiciones finales del sitio, la ubicación de un plano topográfico de las zonas reforestadas, superficies, listado de especies empleadas y actividades de seguimiento de las plantaciones. De haber realizado actividades de traslado de fauna o rescate de individuos de vegetales se deberán indicar las acciones realizadas tendientes a garantizar su supervivencia y los resultados obtenidos. Dicho reporte se deberá acompañar por un anexo fotográfico.

VI. Que existen especies en listadas en la **NOM-059-SEMARNAT-2010**, que establece la protección ambiental a especies nativas de México de flora y fauna silvestres categorizadas de riesgo y especificaciones para su inclusión, o cambio-lista de especies en riesgo publicada en el Diario Oficial de la Federación el 30 de diciembre del 2011.

VII. Que esta Delegación, determina que el proyecto citado es viable de desarrollarse en el área y sitio propuesto, siempre y cuando se observe la **NOM-120-SEMARNAT-2011**- Norma Oficial Mexicana, que establece las especificaciones de protección ambiental para las actividades de exploración minera directa, en zonas agrícolas, ganaderas o en áreas en zonas con climas secos y templados, en donde se desarrolle vegetación de matorral xerófilo, bosque tropical caducifolio, bosques de coníferas o eninos, por lo que no requiere la presentación de una manifestación de impacto ambiental ante esta Secretaría para la realización de esta segunda etapa de exploración minera.

Con base en lo expuesto en los considerandos anteriores y con fundamento en los artículos 8, párrafo segundo, de la Constitución Política de los Estados Unidos Mexicanos; 32 Bis, Fracción XI de la Ley Orgánica de la Administración Pública Federal; 16, Fracción X, de la Ley Federal de Procedimiento Administrativo; 5, Fracción X, 26, Fracción III, 31, Fracción I, de la Ley General del Equilibrio Ecológico y la Protección al Ambiente; 4, Fracción I, 5, Incisos L, Fracción II, 29, 31 y 33 Fracción I, de su Reglamento en Materia de Evaluación del Impacto Ambiental publicado en el Diario Oficial de la Federación el 30 de mayo del 2000; 40, Fracción IX, inciso c), del Reglamento Interior de la Secretaría de Medio Ambiente y Recursos Naturales, de la publicación en el Diario Oficial de la Federación el 26 de noviembre del 2012, una vez

3 de 8



Delegación Federal de SEMARNAT  
 en el estado de Sonora  
 Subdelegación de Gestión  
 Oficina: DS-SC-UCA-IA-0239/2019  
 Batacóna: 2616-0200/419  
 Clave de Proyecto: 2650219M0023

Hermosillo, Sonora, a 10 de mayo del 2019.

analizado el informe preventivo presentado y de acuerdo al artículo 33 Fracción I del Reglamento de Evaluación del Impacto Ambiental de la CEEPA, esta Delegación

**RESULTADO:**

**PRIMERO.** Que las obras y actividades manifestadas en el Informe Preventivo presentado por la empresa **JIL GRUPO MUIATOS DE SONORA, SA DE CV**, para el desarrollo del proyecto **"Santa Daniela"** a través de **208** plantillas de barreración de 10m x 10 m, con una superficie que ocupa de 208 has dentro de una superficie de interés de 520 has de un total de 52359.8273 has, que comprende aprovechar los caminos de accesos a zonas de barreración y las plantillas de barreración a diamante, serán sobre estos caminos, que se ubica partiendo de Muiatos hacia al Noroeste 8 km hasta llegar al sitio del proyecto, entre los municipios de Sahuaripa y Yecora, Sonora y se encuentran en los supuestos previstos en el **Artículo 29 del Reglamento en Materia de Evaluación de Impacto Ambiental y por lo tanto, puede realizar las obras o actividades en los términos propuestos en el Informe Preventivo.**

El proyecto **"Santa Daniela"** consiste en la elaboración de **208** barreros de pantalla de (10mx10) (en anexo al informe preventivo se presentan varios planos terminales y de coordenadas entre otros, ubicado en las coordenadas siguientes.

Barrero	X	Y	Barrero	X	Y
1	724510.047	317167.944	105	725210.600	3170210.511
2	724597.507	317172.660	106	725340.779	3170265.769
3	724555.305	317154.072	107	725378.240	3170358.487
4	724602.765	317162.481	108	725415.701	3170451.206
5	724602.246	317173.199	109	725508.419	3170413.745
6	724732.944	317169.738	110	725601.137	3170376.284
7	724605.484	3171605.030	111	725693.856	3170398.824
8	724658.023	3171512.302	112	725786.574	3170301.363
9	724620.662	3171419.583	113	725879.292	3170283.566
10	724683.102	317136.865	114	725972.010	3170221.027
11	724638.338	3171196.686	115	725433.098	3170228.308
12	724675.820	3171288.404	116	725077.090	3170283.946
13	724713.281	3171382.123	117	725465.894	3171820.950
14	724750.741	3171474.841	118	725590.613	3171881.480
15	724788.202	3171567.559	119	725715.331	3171946.029
16	724825.663	3171660.278	120	725752.049	3171508.568
17	724863.123	3171752.996	121	725877.768	3171471.108
18	724855.842	3171715.535	122	725920.486	3171433.647
19	724918.381	3171622.817	123	726013.205	3171396.187
20	724880.906	3171530.099	124	725964.491	3170911.664
21	724843.460	3171437.380	125	725911.951	3171000.382

4 de 8



**Resource Geosciences Incorporated**  
**CSA NI 43-101 Technical Report on the Santa Daniela Gold Prospect, Municipio of Sahuaripa, Sonora**



Delegación Federal de SEMARNAT  
 en el estado de Sonora  
 Subdelegación de Gestión  
 Oficio: DS-SC-UGA-IA-0239/2019  
 Bifurco: 28502019M023  
 Clave de Proyecto: 28502019M023

Hermosillo, Sonora, a 10 de mayo del 2019.

22	724805.999	3171344.662	126	725139.412	3171102.101
23	724768.538	3171251.943	127	725176.873	3171194.819
24	724731.078	3171159.225	128	725111.333	3171287.538
25	724693.617	3171066.507	129	725151.794	3171380.256
26	725086.021	3171770.793	130	725289.255	3171472.974
27	725048.560	3171678.075	131	725226.715	3171565.693
28	725011.099	3171586.356	132	725119.748	3171658.485
29	724973.639	3171492.638	133	725157.209	3170879.203
30	724936.178	3171399.920	134	725194.670	3170971.922
31	724896.717	3171307.201	135	725231.130	3171064.640
32	724861.257	3171214.483	136	725268.591	3171157.359
33	724823.796	3171121.764	137	725307.052	3171250.077
34	724786.335	3171029.046	138	725344.512	3171342.795
35	724748.875	3170936.328	139	725381.973	3171435.514
36	724711.413	3170843.609	140	725419.434	3171528.232
37	724673.952	3170750.891	141	725456.895	3170620.950
38	724636.491	3170658.172	142	725494.356	3170713.668
39	724599.030	3170565.453	143	725531.817	3170806.386
40	724561.569	3170472.734	144	725569.278	3170899.104
41	724524.108	3170379.015	145	725606.739	3170991.822
42	724486.647	3170286.296	146	725644.200	3171084.540
43	724449.186	3170193.577	147	725681.661	3171177.258
44	724411.725	3170100.858	148	725719.122	3171270.976
45	724374.264	3170008.139	149	725756.583	3171363.694
46	724336.803	3169915.420	150	725794.044	3171456.412
47	724299.342	3169822.701	151	725831.505	3171549.130
48	724261.881	3169730.012	152	725868.966	3171641.848
49	724224.420	3169637.293	153	725906.427	3171734.566
50	724186.959	3169544.574	154	725943.888	3171827.284
51	724149.498	3169451.855	155	725981.349	3171920.002
52	724112.037	3169359.136	156	726018.810	3172012.720
53	724074.576	3169266.417	157	726056.271	3172105.438
54	724037.115	3169173.698	158	726093.732	3172198.156
55	724000.654	3169080.979	159	726131.193	3172290.874
56	723963.193	3168988.260	160	726168.654	3172383.592
57	723925.732	3168895.541	161	726206.115	3172476.310
58	723888.271	3168802.822	162	726243.576	3172569.028
59	723850.810	3168710.103	163	726281.037	3172661.746
60	723813.349	3168617.384	164	726318.498	3172754.464
61	723775.888	3168524.665	165	726355.959	3172847.182
62	723738.427	3168431.946	166	726393.420	3172939.900

5 de 8



Delegación Federal de SEMARNAT  
 en el estado de Sonora  
 Subdelegación de Gestión  
 Oficio: DS-SC-UGA-IA-0239/2019  
 Bifurco: 28502019M023  
 Clave de Proyecto: 28502019M023

Hermosillo, Sonora, a 10 de mayo del 2019.

63	725679.792	3171638.748	167	725697.589	3172415.850
64	725717.510	3171601.287	168	725735.383	3172508.568
65	725755.228	3171563.826	169	725773.177	3172601.286
66	725792.947	3171526.365	170	725810.971	3172694.004
67	725830.666	3171488.903	171	725848.765	3172786.722
68	725868.385	3171451.441	172	725886.559	3172879.440
69	725906.104	3171413.979	173	725924.353	3172972.158
70	725943.823	3171376.517	174	725962.147	3173064.876
71	725981.542	3171339.055	175	726000.941	3173157.594
72	726019.261	3171301.593	176	726038.735	3173249.312
73	726056.980	3171264.131	177	726076.529	3173341.030
74	726094.699	3171226.669	178	726114.323	3173433.748
75	726132.418	3171189.207	179	726152.117	3173526.466
76	726170.137	3171151.745	180	726189.911	3173619.184
77	726207.856	3171114.283	181	726227.705	3173711.902
78	726245.575	3171076.821	182	726265.499	3173804.620
79	726283.294	3170394.359	183	726303.293	3173897.338
80	726321.013	3170301.897	184	726341.087	3173990.056
81	726358.732	3170209.435	185	726378.881	3174082.774
82	726396.451	3170116.973	186	726416.675	3174175.492
83	726434.170	3170024.511	187	726454.469	3174268.210
84	726471.889	3169932.049	188	726492.263	3174360.928
85	726509.608	3169839.587	189	726530.057	3174453.646
86	726547.327	3169747.125	190	726567.851	3174546.364
87	726585.046	3169654.663	191	726605.645	3174639.082
88	726622.765	3169562.201	192	726643.439	3174731.800
89	726660.484	3169469.739	193	726681.233	3174824.518
90	726698.203	3169377.277	194	726719.027	3174917.236
91	726735.922	3169284.815	195	726756.821	3175009.954
92	726773.641	3169192.353	196	726794.615	3175102.672
93	726811.360	3169099.891	197	726832.409	3175195.390
94	726849.079	3169007.429	198	726870.203	3175288.108
95	726886.798	3168914.967	199	726907.997	3175380.826
96	726924.517	3168822.505	200	726945.791	3175473.544
97	726962.236	3168730.043	201	726983.585	3175566.262
98	726999.955	3168637.581	202	727021.379	3175658.980
99	727037.674	3168545.119	203	727059.173	3175751.698
100	727075.393	3168452.657	204	727096.967	3175844.416
101	727113.112	3168360.195	205	727134.761	3175937.134
102	727150.831	3168267.733	206	727172.555	3176029.852
103	727188.550	3168175.271	207	727210.349	3176122.570

6 de 8



SEMARNAT  
SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

Delegación Federal de SEMARNAT  
en el estado de Sonora  
Subdelegación de Gestión  
Oficio: DS-SC-UGA-IA-0239/2019  
Clave de Proyecto: 28S02019M0203  
Hermosillo, Sonora, a 10 de mayo del 2019.

104 735248.061 3170303.729 208 726011.338 3170857.673

Que existen normas oficiales mexicanas y otras disposiciones descritas en los considerandos anteriores que regulan los impactos ambientales que las obras y actividades del proyecto exploración minera directa "Santa Daniela" pudieran producir.

De acuerdo con lo manifestado en el Informe Preventivo el proyecto exploración minera directa "Santa Daniela" se llevará a cabo en un tiempo de 24 meses conforme a la norma NOM-120-SEMARNAT-2011 que establece las especificaciones de protección ambiental para las actividades de exploración minera directa, en zonas con climas secos y templados en donde se desarrolle vegetación de matorral xerófilo, bosque tropical caducifolio, bosques de coníferas o encinos.

La presente se emite en materia ambiental no valida la legal posesión o uso de los predios manifestados para la realización de obras o actividades del proyecto.

**SEGUNDO.** - Que el presente escrito no le exime de la presentación y cumplimiento a las condiciones o requisitos que se incluyan en otras autorizaciones, licencias y permisos u otros ordenamientos legales en general que requieran otras autoridades competentes para la realización de la actividad propuesta en el Informe Preventivo.

**TERCERO.** - De acuerdo con lo señalado por el artículo 29 del Reglamento de la Ley General del Equilibrio Ecológico y la Protección al Ambiente en Materia de Evaluación del Impacto Ambiental, la empresa **JLL GRUPO MULATOS DE SONORA, S.A DE C.V.** debe hacer del conocimiento de esta Delegación Federal de SEMARNAT, de manera previa, cualquier eventual modificación al proyecto que se aparte de lo manifestado, incluyendo lo referente a los tiempos de ejecución de los trabajos, para que con toda oportunidad se determine lo procedente, de acuerdo con la legislación ambiental vigente. Queda estrictamente prohibido desarrollar obras de preparación y construcción distintas a las señaladas en la presente autorización.

**CUARTO.** - De conformidad con el Artículo 35 de la Ley General del Equilibrio Ecológico y la Protección al Ambiente y 49 de su Reglamento en Materia de Evaluación del Impacto Ambiental, la presente autorización, solo se refiere única y exclusivamente a los aspectos ambientales de las obras y actividades descritas en el Término Primero para el Proyecto "Santa Daniela", la presente autorización no reconoce o valida la legítima propiedad y/o tenencia de la tierra, por lo que quedan a salvo las acciones que determine la propia Secretaría, las autoridades federales, estatales y municipales, ante la eventualidad de que la empresa **JLL GRUPO MULATOS DE SONORA, S.A DE C.V.**, no pudiera demostrarlo en su oportunidad.

**QUINTO.** - Notifíquese la presente resolución al Lic. **Jesus Alfredo Noriega Lopez**, por alguno de los medios legales previstos por los Artículos 35, 36 y demás relativos y aplicables de la Ley Federal de Procedimiento Administrativo.

104 735248.061 3170303.729 208 726011.338 3170857.673

7 de 8

*[Handwritten signature]*



SEMARNAT  
SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

Delegación Federal de SEMARNAT  
en el estado de Sonora  
Subdelegación de Gestión  
Oficio: DS-SC-UGA-IA-0239/2019  
Bilácora: 28P-07260419  
Clave de Proyecto: 28S02019M0203  
Hermosillo, Sonora, a 10 de mayo del 2019.

104 735248.061 3170303.729 208 726011.338 3170857.673

Que existen normas oficiales mexicanas y otras disposiciones descritas en los considerandos anteriores que regulan los impactos ambientales que las obras y actividades del proyecto exploración minera directa "Santa Daniela" pudieran producir.

De acuerdo con lo manifestado en el Informe Preventivo el proyecto exploración minera directa "Santa Daniela" se llevará a cabo en un tiempo de 24 meses conforme a la norma NOM-120-SEMARNAT-2011 que establece las especificaciones de protección ambiental para las actividades de exploración minera directa, en zonas con climas secos y templados en donde se desarrolle vegetación de matorral xerófilo, bosque tropical caducifolio, bosques de coníferas o encinos.

La presente se emite en materia ambiental no valida la legal posesión o uso de los predios manifestados para la realización de obras o actividades del proyecto.

**SEGUNDO.** - Que el presente escrito no le exime de la presentación y cumplimiento a las condiciones o requisitos que se incluyan en otras autorizaciones, licencias y permisos u otros ordenamientos legales en general que requieran otras autoridades competentes para la realización de la actividad propuesta en el Informe Preventivo.

**TERCERO.** - De acuerdo con lo señalado por el artículo 29 del Reglamento de la Ley General del Equilibrio Ecológico y la Protección al Ambiente en Materia de Evaluación del Impacto Ambiental, la empresa **JLL GRUPO MULATOS DE SONORA, S.A DE C.V.** debe hacer del conocimiento de esta Delegación Federal de SEMARNAT, de manera previa, cualquier eventual modificación al proyecto que se aparte de lo manifestado, incluyendo lo referente a los tiempos de ejecución de los trabajos, para que con toda oportunidad se determine lo procedente, de acuerdo con la legislación ambiental vigente. Queda estrictamente prohibido desarrollar obras de preparación y construcción distintas a las señaladas en la presente autorización.

**CUARTO.** - De conformidad con el Artículo 35 de la Ley General del Equilibrio Ecológico y la Protección al Ambiente y 49 de su Reglamento en Materia de Evaluación del Impacto Ambiental, la presente autorización, solo se refiere única y exclusivamente a los aspectos ambientales de las obras y actividades descritas en el Término Primero para el Proyecto "Santa Daniela", la presente autorización no reconoce o valida la legítima propiedad y/o tenencia de la tierra, por lo que quedan a salvo las acciones que determine la propia Secretaría, las autoridades federales, estatales y municipales, ante la eventualidad de que la empresa **JLL GRUPO MULATOS DE SONORA, S.A DE C.V.**, no pudiera demostrarlo en su oportunidad.

**QUINTO.** - Notifíquese la presente resolución al Lic. **Jesus Alfredo Noriega Lopez**, por alguno de los medios legales previstos por los Artículos 35, 36 y demás relativos y aplicables de la Ley Federal de Procedimiento Administrativo.

104 735248.061 3170303.729 208 726011.338 3170857.673

8 de 8

*[Handwritten signature]*

ATENTAMENTE  
Jefe de la Unidad Jurídica  
Lic. Dulce María Villarreal Lacort  
SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES  
Subdelegación de Gestión  
Hermosillo, Sonora, a 10 de mayo del 2019.

SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES  
Subdelegación de Gestión  
Hermosillo, Sonora, a 10 de mayo del 2019.

En los términos del artículo 17 bis en relación con los artículos Octavo y Décimo Tercero Transitorios del Decreto por el que se reforman, actualizan y derogan diversas disposiciones de la Ley Orgánica de la Administración Pública Federal, publicado en el Diario Oficial de la Federación el 29 de noviembre de 2018.

DWV/CRC/DAV



SEMARNAT



2019  
 GOBIERNO FEDERAL  
 SEMARNAT

Delegación Federal de SEMARNAT  
 en el estado de Sonora  
 Subdelegación  
 Unidad

Oficio: DS-SC-UGA-1A-0238/2019  
 Bitácora: 26/JP-0129/04/19  
 Clave de Proyecto: 28502019MD023

Hermosillo, Sonora, a 10 de Mayo del 2019.

CARTA DE AUSENCIA DE CONFLICTO DE INTERÉS

Los señores servidores públicos adscritos a la Delegación Sonora de la SEMARNAT, inscritos en el registro que lleva la Secretaría de la Función Pública de quienes participan en las contrataciones públicas, así como en el otorgamiento y prórroga de licencias, permisos, autorizaciones y concesiones, publicado en el Diario Oficial de la Federación el 20 de agosto de 2015 y modificado por las publicaciones del 19 de febrero de 2016 y el 28 de febrero de 2017, bajo protesta de veracidad declaro lo siguiente:

a) Conozco y amiento las obligaciones de los servidores públicos federales en materia de conflicto de interés.  
 b) No tengo ningún interés personal, familiar o de negocios en el procedimiento señalado en el expediente número 1177-19-11100 que se sigue en el expediente número 1177-19-11100, ni para las siguientes personas: cónyuge, concubina o concubinato, hijos, hermanos, consanguíneos o por afinidad hasta el cuarto grado o parientes civiles, terceros con los que tengo relaciones comerciales, laborales o de negocios, mis socios o sociedades de las que forman o han formado parte el suscrito o las personas mencionadas.

En caso de que durante el desarrollo del procedimiento señalado en el expediente citado al rubro, llegue a tener algún interés personal, familiar o de negocios relacionado con dicho procedimiento, procederé conforme a lo previsto en el artículo 8 fracción XI de la Ley Federal de Responsabilidades Administrativas de los Servidores Públicos, dando de inmediato aviso por escrito a mi superior jerárquico y al jefe inmediato, para que se tome las acciones de carácter disciplinario que correspondan, así como a su jefe inmediato, y observar las instrucciones por escrito de éste sobre la atención, tramitación y resolución de los asuntos, cuando el servidor público no pueda abstenerse de intervenir en ellos.

PROTESTAMOS LO NECESARIO

LA JEFA DE LA UNIDAD JURÍDICA  
 LIC. DULCE MARIA VILLARREAL LACARRA  
 VILLARREAL

Con fundamento en lo dispuesto en el artículo 27 de la Ley Federal de Procedimiento Administrativo, con vigencia en Sonora, a 10 de mayo del 2019, firmo la presente en el Estado de Sonora, para a su vez, exhibirla con efecto de veracidad, en el expediente número 1177-19-11100.

EL JEFE DE LA UNIDAD DE GESTIÓN AMBIENTAL

CERMAN DANIEL COMEZA GONZALEZ

ENLACE DE IMPACTO AMBIENTAL

JORGE LISWASQUEZ VALENCIA

En mi calidad de Jefe de la Unidad de Gestión Ambiental, declaro que conozco y amiento las obligaciones de los servidores públicos federales en materia de conflicto de interés, y que no tengo ningún interés personal, familiar o de negocios en el procedimiento señalado en el expediente número 1177-19-11100, ni para las siguientes personas: cónyuge, concubina o concubinato, hijos, hermanos, consanguíneos o por afinidad hasta el cuarto grado o parientes civiles, terceros con los que tengo relaciones comerciales, laborales o de negocios, mis socios o sociedades de las que forman o han formado parte el suscrito o las personas mencionadas.











Appendix 6 Assay certificate and sample photos, independent samples collected by M Gray.



Left: Outcrop exposure of sample site SD-1. Right: Detail of sample SD-1, silicified porphyritic dacite, dense porcelainous silica cut by cryptocrystalline and fine drusy quartz veinlets. Assayed 6.27 ppm Au.



Left: Outcrop exposure of sample site SD-2. Right: Detail of sample SD-2, multistage quartz veined rhyolitic tuff (?). White porcelainous silica, in places brecciated with red hematitic silicified matrix. Veinlets irregular - tectonized? Latest veinlets are drusy. Assayed 0.226 ppm Au.



Left: Outcrop exposure of sample site SD-3. Right: detail of sample SD-3, silicified and quartz veined rhyolitic tuff just above NA330 25SW contact with underlying weakly argillized dacite. Assayed 0.994 ppm Au.



Sample SD-4, footwall to sample SD-3, weakly argillized feldspar porphyritic dacite porphyry. Unmineralized, <0.005 ppm Au.



**Resource Geosciences Incorporated**  
**CSA NI 43-101 Technical Report on the Santa Daniela Gold Prospect, Municipio of Sahuaripa, Sonora**



Total pages: 5 (including this page)

**JOB NUMBER: B2120-002**

August 14, 2020  
 PROJECT: Santa Daniela, Sonora

FROM: SD-1  
 TO: SD-4

**CERTIFICATE OF ANALYSIS**

**Final Report**

**Analysis Of 4 Rock Chip samples**

The following analytical packages were requested.  
 Please see our current fee schedule for elements and detection limits

- FA-01 Au Fire Assay - AAS (geochem) 5-5,000 ppb
- FA-02 Au Fire Assay - Gravimetric Assay (0.05-1,000 g/m)
- TE-2 31 Elements - Aqua Regia Digestion (ICP/OES)

**ANALYSIS BY SKYLINE LABORATORIES / TUCSON**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal, excess material will be returned, or disposed of, at clients expense within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.



CERTIFIED BY: Michael Jacobson

7960 S. Kolb Rd, Tucson, AZ 85756  
 Tel: (520) 922-4836  
 Fax: (520) 622-8085  
 tuscon@skylineabs.com  
 http://www.skylineabs.com



Henry G. Gungor  
 President/CEO  
 J Robert Clark, Ph.D.  
 Chairman

William L. Lehnbeck  
 Arizona Assayer Emeritus No. 9425  
 Michael T. Jacobson  
 Arizona Assayer Emeritus No. 52700



Page 2 of 5

Client: Resource Geosciences Inc.  
 Project: Santa Daniela, Sonora  
 Sample type(s): Rock Chip  
 Submitted by: Matthew D Gray

ANALYSIS CERTIFICATE  
**B2120-002**  
 14-Aug-20

**RESULTS**

Analyte	Au	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	La
Units	ppm	g/mt	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	ppm
Limit	0.005	0.03	0.2	0.01	5	10	0.5	5	0.01	1	1	1	1	0.01	0.01	10
Package Code	FA-01	FA-02	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2	TE-2
1 SD-1	> 5,000	6.27	10.6	0.40	130	30	< 0.5	< 5	0.02	< 1	< 1	.4	11	1.14	0.24	< 10
2 SD-2	0.226		1.8	0.17	15	40	< 0.5	< 5	0.04	< 1	< 1	14	8	1.18	0.11	< 10
3 SD-3	0.994		2.2	0.23	65	620	< 0.5	< 5	0.05	1	2	16	10	1.05	0.13	< 10
4 SD-4	< 0.005		< 0.2	1.47	10	90	0.5	< 5	0.33	3	13	9	23	2.53	0.61	30

7960 S. Kolb Rd, Tucson, AZ 85756  
 Tel: (520) 922-4836  
 Fax: (520) 622-8085  
 tuscon@skylineabs.com  
 http://www.skylineabs.com



Certificate Scope available at  
<http://www.skylineabs.com/iso>

Henry G. Gungor  
 President/CEO  
 J Robert Clark, Ph.D.  
 Chairman

William L. Lehnbeck  
 Arizona Assayer Emeritus No. 9425  
 Michael T. Jacobson  
 Arizona Assayer Emeritus No. 52700



**Resource Geosciences Incorporated**  
**CSA NI 43-101 Technical Report on the Santa Daniela Gold Prospect, Municipio of Sahuaripa, Sonora**



Page 3 of 5

Client: Resource Geosciences Inc.  
 Project: Santa Daniela, Sonora  
 Sample type(s): Rock Chip  
 Submitted by: Matthew D Gray

ANALYSIS CERTIFICATE  
**BZ120-002**  
 14-Aug-20

**RESULTS**

Package Code	Analyte	Units	Limit	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Se	Sr	Ti	Ti	V	W	Zn
				%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
			TE-2	0.01	5	2	0.01	1	0.001	2	0.01	5	0.1	1	0.01	10	1	10	1
1	SD-1			0.04	55	< 2	< 0.01	1	0.011	6	0.01	5	1.2	3	< 0.01	< 10	39	< 10	7
2	SD-2			0.06	120	< 2	< 0.01	3	0.012	2	0.08	10	0.2	6	< 0.01	< 10	23	< 10	10
3	SD-3			0.06	125	< 2	< 0.01	3	0.008	2	0.35	< 5	0.4	12	< 0.01	< 10	9	< 10	12
4	SD-4			0.95	505	< 2	0.02	12	0.067	4	0.08	< 5	3.6	8	0.06	< 10	78	< 10	87

7980 S. Kolb Rd. Tucson, AZ 85756  
 Tel (520) 622-4556  
 Fax (520) 622-6085  
 tucson@skylineabs.com  
 http://www.skylineabs.com



Certificate Scope available at  
<http://www.skylineabs.com/iso>

Nancy G. Gungor  
 President, CEO  
 J. Robert Clark, Ph.D.  
 Chairman

William L. Lehmbeck  
 Arizona Assayer Emeritus No. 9425  
 Michael T. Jacobson  
 Arizona Assayer Emeritus No. 92700



Page 4 of 5

Client: Resource Geosciences Inc.  
 Project: Santa Daniela, Sonora  
 Sample type(s): Rock Chip  
 Submitted by: Matthew D Gray

ANALYSIS CERTIFICATE  
**BZ120-002**  
 14-Aug-20

**RESULTS**

Package Code	Analyte	Units	Limit	Zr
				ppm
			TE-2	1
1	SD-1			2
2	SD-2			1
3	SD-3			< 1
4	SD-4			11

7980 S. Kolb Rd. Tucson, AZ 85756  
 Tel (520) 622-4556  
 Fax (520) 622-6085  
 tucson@skylineabs.com  
 http://www.skylineabs.com



Certificate Scope available at  
<http://www.skylineabs.com/iso>

Nancy G. Gungor  
 President, CEO  
 J. Robert Clark, Ph.D.  
 Chairman

William L. Lehmbeck  
 Arizona Assayer Emeritus No. 9425  
 Michael T. Jacobson  
 Arizona Assayer Emeritus No. 92700



Client: Resource Geosciences Inc.  
 Project: Santa Daniela, Sonora  
 Sample type(s): Rock Chip  
 Submitted by: Matthew D Gray

ANALYSIS CERTIFICATE  
**BZ120-002**  
 14-Aug-20

**QUALITY CONTROL**

Package Code	Analyte	Au	
		Units	Limit
		ppm	g/t
		0.005	0.03
		FA-01	FA-02
CDN-CM-22 meas		0.740	
CDN-CM-22 cert		0.718	
CDN-GS-5M meas			3.77
CDN-GS-5M cert			3.910
CDN-GS-7F meas			6.99
CDN-GS-7F cert			6.90
SD-1 orig		> 5.000	6.27
SD-1 dup		> 5.000	6.21
SD-4 orig		< 0.005	
SD-4 dup		< 0.005	

**ANALYSIS METHODS**

Method Code	Description
FA-AAS	Fire Assay - AAS, SOP 410
FA-GRAV	Fire Assay Gravimetric, SOP 411,412
TE-2	Aqua-Regia Digestion - ICP-OES, SOP 424

7900 S. Kahl Rd. Tucson, AZ 85756  
 Tel (520) 622-4556  
 Fax (520) 622-6065  
 tucson@skylineabs.com  
 http://www.skylineabs.com



Certificate Scope available at  
<http://www.skylineabs.com/iso>

Nancy G. Gungor  
 President/CEO  
 J. Robert Clark, Ph.D.  
 Chairman

William L. Lehmbach  
 Arizona Assayer Emeritus No. 9425  
 Michael T. Jacobson  
 Arizona Assayer Emeritus No. 92700