NI 43-101 TECHNICAL REPORT ON THE POLYHALITE RESOURCES AND UPDATED MINERAL RESOURCES ESTIMATE FOR THE OCHOA PROJECT Lea County, Southeast New Mexico

Prepared for



Dated November 25, 2011

Prepared by William J. Crowl, R.G., QP MMSA Donald E. Hulse, P.E. JJ Brown, PG, MMSA QP



DATE AND SIGNATURE PAGES

WILLIAM J. CROWL, R.G.

Vice President, Mining Gustavson Associates, LLC 274 Union Boulevard, Suite 450 Lakewood, Colorado 80228 Telephone: 720-407-4062 Facsimile: 720-407-4067 Email: wcrowl@gustavson.com

CERTIFICATE of AUTHOR

I, William J. Crowl do hereby certify that:

1. I am currently employed as Vice President, Mining by Gustavson Associates, LLC at:

274 Union Boulevard Suite 450 Lakewood, Colorado 80228

- 2. I am a graduate of the University of Southern California with a Bachelor of Arts in Earth Science (1968), and a M.Sc. In Economic Geology from the University of Arizona in 1979, and have practiced my profession continuously since 1973.
- 3. I am a registered Professional Geologist in the State of Oregon (G573) and am a member in good standing of the Mining and Metallurgical Society of America (member # QP 01412QP) and the Society of Economic Geologists.
- 4. I have worked as a geologist for a total of 35 years since my graduation from university; as a graduate student, as an employee of a major mining company, a major engineering company, and as a consulting geologist.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am responsible for the preparation of the technical report titled "NI 43-101 Technical Report on the Polyhalite Resources and Updated Mineral Resource Estimate for the Ochoa Project" dated November 25, 2011 (the "Technical Report"). I personally conducted a visit to the Ochoa Project Site April 28-29, 2010, and specifically responsible for Sections 1 through 6 as well as oversight and review of the entire report.
- 7. I have personally completed an independent review and analysis of the data and written information contained in this Technical Report.



- 8. I previously contributed to the preparation of the technical report on this property titled "NI 43-101 Technical Report on the Polyhalite Resources and Preliminary Economic Assessment of the Ochoa Project in Lea County, Southeast New Mexico," dated August 19, 2009. I have previously worked on the Ochoa project as a consultant.
- 9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 10. I do not hold, nor do I expect to receive, any securities or any other interest in any corporate entity, private or public, with interests in the properties that are the subject of this report or in the properties themselves, nor do I have any business relationship with any such entity apart from a professional consulting relationship with the issuer, nor to the best of my knowledge do I have any interest in any securities of any corporate entity with property within a two (2) kilometer distance of any of the subject properties.
- 11. I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with that instrument and form.
- 12. I consent to the filing of the Technical Report with any stock exchanges or other regulatory authority and any publication by them, including electronic publication in the public company files on the websites accessible by the public, of the Technical Report.

Dated this 25th day of November, 2011

/s/William J. Crowl (Signature) Signature of Qualified Person

"William J. Crowl" Print Name of Qualified Person



DONALD E. HULSE, P.E.

Vice President Gustavson Associates, LLC 274 Union Boulevard, Suite 450 Lakewood, Colorado 80228 Telephone: 720-407-4062 Facsimile: 720-407-4067 Email: dhulse@gustavson.com

CERTIFICATE of AUTHOR

I, Donald E. Hulse do hereby certify that:

1. I am currently employed as Principal Mining Engineer by Gustavson Associates, LLC at:

274 Union Boulevard Suite 450 Lakewood, Colorado 80228

- 2. I am a graduate of the Colorado School of Mines with a Bachelor of Science in Mining Engineering (1982), and have practiced my profession continuously since 1983.
- 3. I am a registered Professional Engineer in the State of Colorado (35269).
- 4. I have worked as a mining engineer for a total of 25 years since my graduation from university; as an employee of a major mining company, a major engineering company, and as a consulting engineer.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am responsible for the preparation of the technical report titled "NI 43-101 Technical Report on the Polyhalite Resources and Updated Mineral Resource Estimate for the Ochoa Project", dated November 25, 2011 (the "Technical Report"), and specifically responsible for Sections 13, 14 and 16 through 19.
- 7. I have personally completed an independent review and analysis of the data and written information contained in this Technical Report.
- 8. I previously contributed to the preparation of the technical report on this property titled "NI 43-101 Technical Report on the Polyhalite Resources and Preliminary Economic Assessment of the Ochoa Project in Lea County, Southeast New Mexico," dated August19, 2009. I have previously worked on the Ochoa project as a consultant.



- 9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 10. I do not hold, nor do I expect to receive, any securities or any other interest in any corporate entity, private or public, with interests in the properties that are the subject of this report or in the properties themselves, nor do I have any business relationship with any such entity apart from a professional consulting relationship with the issuer, nor to the best of my knowledge do I have any interest in any securities of any corporate entity with property within a two (2) kilometer distance of any of the subject properties.
- 11. I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with that instrument and form.
- 12. I consent to the filing of the Technical Report with any stock exchanges or other regulatory authority and any publication by them, including electronic publication in the public company files on the websites accessible by the public, of the Technical Report.

Dated this 25th day of November, 2011

/s/Donald E. Hulse (Signature) Signature of Qualified Person

"Donald E. Hulse" Print Name of Qualified Person



JENNIFER J. BROWN, P.G.

Principal Geologist Lowham Walsh LLC1 205 South Third Street Lander, Wyoming USA 82520 Telephone: 307-335-8466 Facsimile: 307-335-7343 Email: jjbrown@lowhamwalsh.com

CERTIFICATE of AUTHOR

I, Jennifer J. Brown, do hereby certify that:

1. I am currently employed as a Principal Geologist by Lowham Walsh LLC at:

205 South Third Street Lander, Wyoming USA 82520

- 2. I am a graduate of the University of Montana with a Bachelor of Arts in Geology (1996), and I have practiced my profession continuously since 1997.
- 3. I am a licensed Professional Geologist in the States of Wyoming (PG-3719) and Idaho (PGL-1414), and am a Registered Member in good standing of the Society of Mining, Metallurgy and Exploration (#4168244RM) with recognized special expertise in geology and mining. I am also a member of the American Institute of Professional Geologists (MEM-0174)
- 4. I have worked as a geologist for a total of 14 years since graduation from university as an employee of four separate engineering and geological consulting firms and the U.S.D.A. Forest Service.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am responsible for the preparation of the technical report titled "NI 43-101 Technical Report on the Polyhalite Resources and Updated Mineral Resource Estimate for the Ochoa Project", dated November 25, 2011 (the "Technical Report"), and specifically responsible for Sections 7 through 12, and 15 as well as oversight and review of the Technical Report.
- 7. I have personally completed an independent review and analysis of the data and written information contained in this Technical Report.

¹ Lowham Walsh LLC is part of a group of companies, including Gustavson Associates that are controlled by Ecology and Environment, Inc.



- 8. I previously contributed to the preparation of the technical report on this property titled "NI 43-101 Technical Report on the Polyhalite Resources and Preliminary Economic Assessment of the Ochoa Project in Lea County, Southeast New Mexico," dated August19, 2009. I have previously worked on the Ochoa project as a consultant.
- 9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 10. I do not hold, nor do I expect to receive, any securities or any other interest in any corporate entity, private or public, with interests in the properties that are the subject of this report or in the properties themselves, nor do I have any business relationship with any such entity apart from a professional consulting relationship with the issuer, nor to the best of my knowledge do I have any interest in any securities of any corporate entity with property within a two (2) kilometer distance of any of the subject properties.
- 11. I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with that instrument and form.
- 12. I consent to the filing of the Technical Report with any stock exchanges or other regulatory authority and any publication by them, including electronic publication in the public company files on the websites accessible by the public, of the Technical Report.

Dated this 25th day of November, 2011

/s/ Jennifer J. Brown (Signature) Signature of Qualified Person

"Jennifer J. Brown" Print name of Qualified Person



TABLE OF CONTENTS

<u>Sec</u>	<u>CTION</u>	TITLE	PAGE NO.
1.	SUM	MARY	
	1.1 1.2 1.3 1.4 1.5 1.6	Introduction Property Description and Ownership Geology and Mineralization Status of Exploration Mineral Resource Estimate Conclusions and Recommendations	
2.	INTF	RODUCTION	5
	2.1 2.2	Qualified Persons Sources of Information	
3.	REL	IANCE ON OTHER EXPERTS	6
4.	PRO	PERTY DESCRIPTION AND LOCATION	7
	4.1 4.2 4.3 4.4	Location Mineral Rights and Tenure Royalties Environmental Liabilities	
5.		ESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTUR /SIOGRAPHY	
	5.1 5.2	Accessibility, Infrastructure, and Local Resources Topography, Elevation, Vegetation, and Climate	
6.	HIST	FORY	
7.	GEO	LOGICAL SETTING	
	7.17.27.37.4	Regional GeologyLocal Geology7.2.1Castile Formation7.2.2Salado Formation7.2.3Rustler Formation7.2.4Dewey Lake FormationProperty GeologyMineralization	23 23 24 24 24 24 24 25
8.	DEP	OSIT TYPES	
9.	EXP		
	9.1	Subsurface Interpretation	
10.	DRII	LLING	
	10.1	Procedures and Conditions 10.1.1 Rotary Drilling 10.1.2 Diamond Core Drilling	35



11.	SAM	10.1.3	10.1.3.1 10.1.3.2 10.1.3.3	ogs Collar Surveys Downhole Surveys Core Recovery N, ANALYSES, AND SECURITY	
11.					
	11.1			d Security	
	11.2			ssurance / Quality Control Program Design	
	11.3	•	•	and Analysis	
12.	DAT	A VERII	FICATION.		
13.	MIN	ERAL P	ROCESSIN	G AND METALLURGICAL TESTING	
14.	MIN	ERAL R	ESOURCE	ESTIMATES	
	14.1	Data Us	ed for the Po	lyhalite Grade Estimation	
	14.2			n Methodology	
		14.2.1		ration	
		14.2.2	Statistical I	Data	
		14.2.3		у	
		14.2.4		Gaussian Simulation	
		14.2.5		dation	
	14.3			nation	
		14.3.1		ated	
		14.3.2		Data	
		14.3.3		Guassian Simulation and Validation	
	14.4	14.3.4		dation	
	14.4			abulation	
15.	-		-	ES	
16.	OTH	ER REL	EVANT DA	TA AND INFORMATION	
17.	INTE	RPRET	ATIONS AN	ND CONCLUSIONS	
18.	REC	OMMEN	DATIONS.		
19.	REFI	ERENCE	ES		



LIST OF FIGURES

FIGURE

PAGE

FIGURE 4-1 C	OCHOA POLYHALITE PROJECT LOCATION	7
FIGURE 4-2 C	CLAIM BOUNDARY MAP	17
FIGURE 5-1 T	SUPICAL TERRAIN AND VEGETATION OF THE OCHOA PROJECT	20
FIGURE 7-1 D	DELAWARE BASIN, OCHOA PROJECT BOUNDARY IN RED (MODIFIED FROM WARD ET AL. 1986)	22
FIGURE 7-2 C	CONCEPTUAL CROSS-SECTION OF THE DELAWARE BASIN	23
FIGURE 7-3 C	DCHOAN STRATIGRAPHIC MAPPING UNITS DEFINED BY POWERS (2006)	25
FIGURE 9-1 T	SUPICAL WIRELINE LOGS WITH MARKER HORIZONS	30
FIGURE 9-2 R	Representative Cross Section Alignments	32
FIGURE 9-3 N	NORTHWEST-SOUTHEAST CROSS SECTION ALONG BASIN AXIS	33
FIGURE 9-4 V	West-east Cross Section	34
FIGURE 10-1	OCHOA DRILL HOLE LOCATIONS	39
FIGURE 14-1	P-PLOT OF THICKNESS DATA SHOWING NORMALITY	50
FIGURE 14-2	SPHERICAL VARIOGRAM OF POLYHALITE THICKNESS WITH NORMALIZED VARIOGRAM MODEL	
PARAM	ETERS SHOWN	51
FIGURE 14-3	RESULTS OF M-TYPE ESTIMATE VS SAMPLE DATA	53
FIGURE 14-4	CONTOUR MAP OF THE POLYHALITETHICKNES	54
FIGURE 14-5	DISTRIBUTION OF AVERAGE GRADE FOR ICP CORE HOLES.	57

LIST OF TABLES

TABLE

TABLE 1-1 OCHOA PROJECT MINERAL RESOURCE TABULATION	3
TABLE 4-1 OCHOA PROJECT AREA BLM PROSPECTING PERMITS	8
TABLE 4-2 NEW MEXICO STATE LEASES INCLUDED IN THE OCHOA PROJECT	14
TABLE 9-1 SUMMARY PETROPHYSICAL MARKERS DEFINED FOR CORRELATION	29
TABLE 10-1 Summary of Wireline Logs Collected	37
TABLE 10-2 DRILL HOLE COLLAR LOCATION INFORMATION	38
TABLE 14-1 DESCRIPTIVE STATISTICS OF POLYHALITE THICKNESS (IN FEET)	49
TABLE 14-2 DESCRIPTIVE STATISTICS COMPARISON OF POLYHALITE THICKNESS (IN FEET)	52
TABLE 14-3 DISTRIBUTION OF AVERAGE GRADE FOR ICP CORE HOLES	55
TABLE 14-4 MINERAL RESOURCE ESTIMATE	58



PAGE

ILLUSTRATIONS

Figures and illustrations are included throughout the body of the report. Additional maps, tables, and figures with regard to geology and mineral resources are presented in Appendix A.



1. <u>SUMMARY</u>

1.1 Introduction

Intercontinental Potash Corporation (ICP) commissioned Gustavson Associates LLC (Gustavson) to update the mineral resource estimate for the Ochoa Polyhalite Project in Lea County, New Mexico, based on additional information from drill holes completed as of September 1, 2011. The purpose of this report is to document the results of continued exploration work and to update the mineral resource estimate in compliance with Canadian National Instrument 43-101, Standards of Disclosure for Mineral Projects.

1.2 <u>Property Description and Ownership</u>

The Ochoa Project is located in the Pecos Valley section of the southern Great Plains physiographic province, approximately 60 miles east of Carlsbad, New Mexico, and less than 20 miles west of the Texas-New Mexico state line. The local climate is typical of a high plains desert environment. Terrain is relatively flat with shallow arroyos and low-quality semi-arid rangeland. Elevation ranges from 3,100 ft to 3,750 ft above sea level. Exploration, mining, and mineral processing can occur year-round.

ICP's mineral rights with regard to the Ochoa Project include 21 Bureau of Land Management (BLM) prospecting permits (76,064.48 acres), 17 state mining leases (25,890 acres), and 13 new BLM exploration permits (27,921 acres) for potassium minerals (potash) including polyhalite. The total acreage controlled by ICP amounts to 101,954 acres

1.3 <u>Geology and Mineralization</u>

The Ochoa Project lies at the northeastern margin of the Delaware Basin, a structural sub-basin of the large Permian Basin that dominated the region of southeast New Mexico, West Texas, and northern Mexico from 265 Ma to 230 Ma. The project area is located in the southeast corner of New Mexico, approximately 25 miles east of a major potash producing district near Carlsbad. ICP's exploration target is polyhalite contained in the Tamarisk Member of the Rustler Formation. The Rustler Formation overlies the Salado Formation, which is host to the McNutt potash zone in the Carlsbad area. The Rustler Formation is predominantly made up of marine anhydrite and dolomite, and represents a transition between the predominantly halite-bearing evaporites of the Salado Formation to the continental red beds of the Dewey Lake Formation.



The Tamarisk Member is comprised of three sub-units that are a lower basal anhydrite, a middle mudstone, and an upper anhydrite. Polyhalite occurs within the upper anhydrite. The thickness of the Tamarisk Member varies principally as a function of the thickness of the middle halite unit.

1.4 <u>Status of Exploration</u>

Exploration work completed at the Ochoa Project includes six widely distributed drill holes completed between December 2009 and February 2010 (Phase I), seven in-fill drill holes completed between April and September, 2010 (Phase 2), and seven additional in-fill drill holes completed between January 2011 and June 2011 (Phase 2B). Other exploration work includes study of a roughly 1,000-mi² area in order to identify major geologic features and determine the basic distribution of lithologic units, including polyhalite mineralization. This work relied on published reports and was supplemented with petroleum data records and well logs obtained from public and commerical sources. ICP also aquired 812 geophysical borehole logs from various exploration sources. Wireline log readings from these boreholes have been used to interpret subsurface lithology.

1.5 <u>Mineral Resource Estimate</u>

Gustavson used conditional simulation and an ordinary Kriging algorithm to estimate polyhalite thickness and grade into a grid model. Geophysical data from oil and gas wells drilled in and around the Ochoa Project area were combined with ICP drill core data available as of September 1, 2011 and used to correlate and verify geologic interpretations and polyhalite thicknesses. A two-dimensional, gridded polyhalite thickness model was generated by Upstream Resources LLC (Upstream) using the Petra® software package. A tonnage factor of 11.43 ft³/ton was derived from core hole density tests in 2009. Densities indicated by the results of process and rock mechanics testing in 2011 are slightly lower, averaging 11.76 ft³/ton. Gustavson used a weighted average of 11.53 ft³/ton the resource estimation.

The updated polyhalite mineral resource estimate for the Ochoa Project is presented in Table 1-1.



Conditional Simulation Median Model						
4 ft Minimum Thickness	Measured	Indicated	Measured plus Indicated	Inferred		
Tons (million)	422	562	984	440		
Grade Polyhalite	80.2%	79.9%	80.0%	80.6%		
Eq Grade K ₂ SO ₄	22.7%	22.6%	22.7%	22.8%		
5 ft Minimum Thickness	Measured	Indicated	Measured plus Indicated	Inferred		
Tons (million)	390	448	838	269		
Grade Polyhalite	80%	80.2%	80.3%	80.7%		
Eq Grade K ₂ SO ₄	22.8%	22.7%	22.8%	22.9%		
6 ft Minimum Thickness	Measured	Indicated	Measured plus Indicated	Inferred		
Tons (million)	42	21	63	.8		
Grade Polyhalite	84.5%	84.4%	84.5%	84.2%		
Eq Grade K_2SO_4	24.0%	23.9%	23.9%	23.9%		

Table 1-1 Ochoa Project Mineral Resource Tabulation

1.6 Conclusions and Recommendations

ICP controls a large land package that hosts a substantial polyhalite resource. The polyhalite occurs at depths of 975 to 1,600 ft within the project area, and is considered to be minable using conventional room and pillar mining methods with continuous miners and other underground mining equipment. ICP has drilled 20 core holes into the Ochoa polyhalite bed, and the mineral resource estimate is based on data from these and 789 previously drilled rotary holes. The measured plus indicated mineral resource is estimated at 838.2 million tons grading 80.3% polyhalite, at a 5-ft minimum thickness. Gustavson believes that results of this study warrant continued efforts to advance the Ochoa Project, and that the data and information presented herein are sufficient to support preparation of a preliminary feasibility study.

Gustavson recommends that the Ochoa Project proceed to a preliminary feasibility study, and that bench scale metallurgical tests be carried out with currently available sample. The company should continue ongoing baseline environmental programs in order to facilitate the



permitting/National Environmental Protection Agency (NEPA) process. Dependent upon positive outcome of the preliminary feasibility study, Gustavson also recommends an additional drilling program of sufficient size to collect sample for pilot scale metallurgical tests, and infill drilling at an appropriate spacing to convert the current indicated mineral resource to additional measured resource. The costs associated with these recommendations break out as follows:

Phase 3 Exploration Program and Project Development

Phase 3A Preliminary feasibility study In-progress \$ committed

Provided outcome of PFS is positive.

Phase 3B	Feasibility study Metallurgical testing	\$10,000,000 \$1,500,000
	Aerial Survey	\$200,000
	Geotechnical / Soil test	\$500,000
	Hydrological Test Environmental Permitting	\$3,500,000 <u>\$1,000,000</u>
	Subtotal	\$16,500,000
Phase 3c	Definition drilling	<u>\$4,000,000</u>
	Total	\$20,700,000



2. <u>INTRODUCTION</u>

Gustavson was retained by ICP to update the mineral resource estimate for the Ochoa Polyhalite Project located in Lea County, New Mexico, based on new information from additional drilling completed as of September 1, 2011. The purpose of this report is to document the results of continued exploration work and to update the mineral resource estimate in compliance with Canadian National Instrument 43-101 (NI 43-101) Standards of Disclosure for Mineral Projects.

2.1 <u>Qualified Persons</u>

The qualified persons responsible for this NI 43-101 Technical Report are William J. Crowl, R.G., Donald E. Hulse, P.E., and Jennifer J. Brown, P.G. Mr. Crowl is a geologist and acted as project manager during the preparation of this report. He conducted a visit to the Ochoa Project Site April 28-29, 2010, and is specifically responsible for report Sections 1 through 6 as well as oversight and review of this Technical Report. Mr. Hulse is an engineer and specifically responsible for Sections 13, 14, and 16 through 19 as well as an overall review of this Technical Report. Ms. Brown is a geologist with specific responsibility for Sections 7 through 12, and 15, as well as oversight and review of this Technical Report.

2.2 <u>Sources of Information</u>

Gustavson sourced information from referenced documents as cited in the text and summarized in Section 19 of this report. Gustavson previously reported a mineral resource estimate for the Ochoa Project in the "NI-43-101 Technical Report on the Polyhalite Resources and Preliminary Economic Assessment of the Ochoa Project in Lea County, Southeast New Mexico," dated August 19, 2009. A portion of the background information and technical data used in this study was obtained from Gustavson's 2009 report. Additional and updated information and technical data was provided by ICP.



3. <u>RELIANCE ON OTHER EXPERTS</u>

During this study, Gustavson relied on information provided by ICP regarding land agreements, options, claims of accuracy of title, royalty information, and environmental liabilities. Gustavson also relied on the operating experience of ICP's Chief Operating Officer K. Randall Foote, B.Sc. Mining Engineering (Member, SME). Mr. Foote has over 28 years of experience in mine and mill management, as well as corporate management in Carlsbad potash operations. Mr. Foote provided complete access to technical data, reports, and the project database.

Patrick Okita, PhD, Principal and Economic Geologist with Upstream Resources LLC, has over 26 years of experience in international minerals, and with special expertise in industrial minerals and chemical-sedimentary ore deposits. Dr. Okita's experience ranges from basin-wide and regional scale evaluations to site-specific reserve delineation drilling and feasibility studies. With regard to the Ochoa Project, Gustavson relied on Dr. Okita for information concerning field mapping, exploration and development planning and execution, drilling, sampling, and geophysical and chemical testing.



4. PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Ochoa Project is located about 60 miles east of Carlsbad, New Mexico, less than 20 miles west of the Texas-New Mexico state line. The project spans portions of 10 townships, with lease mineral rights totaling roughly 102,000 acres. The general location is shown in Figure 4-1.

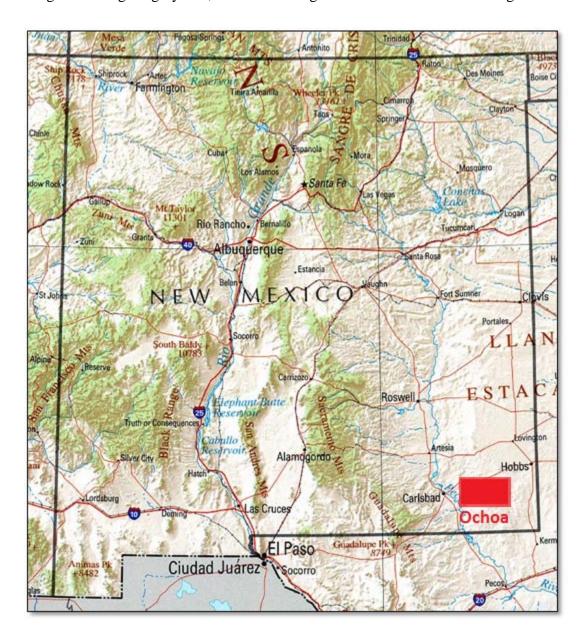


Figure 4-1 Ochoa Polyhalite Project Location



4.2 <u>Mineral Rights and Tenure</u>

The Ochoa property is composed of 21 BLM prospecting permits (48,146 acres), 17 state mining leases (25,890 acres), and 13 new BLM exploration permits (27,921 acres) for potassium minerals that include polyhalite. The term of each leasable mineral exploration prospecting permit is two years, renewable for an additional two years, and convertible to an exploitation (production) lease upon satisfactory demonstration to the BLM or state agency that a chiefly valuable resource exists. ICP applied for production lease status in June 2011. As of the effective date of this report, BLM is in the process of evaluating the resource for chiefly valuable status. Table 4-1and Table 4-2 list the BLM and New Mexico State exploration permits currently held by ICP.

Serial Number	Township and Range	Sections and Descriptions	BLM Approval Date	Acreage
124371	Township 22 South, Range 33 East, NMPM	Section 29: S2	5/24/2010	320.00
124371	Township 22 South, Range 32 East, NMPM	Section 19: S2 Section 20: S2 Section 21: All Land Section 22: All Land	5/24/2010	1,929.00
124372	Township 22 South, Range 32 East, NMPM	Section 23: All Lands Section 24: S2 Section 25: All Lands Section 26: All Lands	5/24/2010	2,560.00
124373	Township 22 South, Range 32 East, NMPM	Section 27: All Lands Section 31: All Lands Section 34: All Lands Section 35: All Lands	5/24/2010	2,260.72
124374	Township 22 South, Range 31 East, NMPM	Section 23: All Lands Section 24: All Lands Section 25: All Lands Section 26:All Lands	5/24/2010	1,200.00
124375	Township 22 South, Range 31 East, NMPM	Section 35: All Lands	5/24/2010	640
124375	Township 23 South, Range 31 East, NMPM	Section 1: All lands Section 11: NE4 Section 12: All Lands	5/24/2010	1,159.00
124375	Township 23 South, Range 32 East, NMPM	Section 1: NW4, W2NE4	5/24/2010	240.00

 Table 4-1 Ochoa Project Area BLM Prospecting Permits



Serial Number	Township and Range	Sections and Descriptions	BLM Approval Date	Acreage
124376	Township 23 South, Range 32 East, NMPM	Section 7: All Lands Section 11: All Lands Section 14: All Lands Section 15: All Lands	5/24/2010	2,263.92
124377	Township 23 South, Range 32 East, NMPM	Section 17: All Lands Section 18: N2 Section 20: N2 Section 21: S2 Section 18: SE4 Section 20: SE4 Section 21: NW4, W2NE4	5/24/2010	2,492.07
124378	Township 23 South, Range 32 East, NMPM	Section 26: S2 Section 27: S2 Section 28: N2, SE4 Section 34: N2, SE4 Section 35: All Lands	5/24/2010	2,240.00
124379	Township 23 South, Range 33 East, NMPM	Section 19: All Lands Section 20: All Lands Section 29: All Lands Section 30: All Lands	5/24/2010	2,543.32
124380	Township 23 South, Range 34 East, NMPM	Section 20: S2, NW4 Section 27: S2, NW4 Section 28: All Lands Section 29: S2, NE4	5/24/2010	2,080.00
124381	Township 23 South, Range 34 East, NMPM	Section 30: All Lands	5/24/2010	640.00
124381	Township 24 South, Range 32 East, NMPM	Section 1: All Lands Section 12: N2	5/24/2010	960.00
124381	Township 24 South, Range 33 East, NMPM	Section 35: All Lands	5/24/2010	633.00
124382	Township 24 South, Range 34 East, NMPM	Section 30: E2, NE4SW4, SE4NW4 Section 31: W2	5/24/2010	720.00
124382	Township 25 South, Range 33 East, NMPM	Section 1: All Lands Section 3: All Lands	5/24/2010	1,281.00
124383	Township 25 South, Range 33 East, NMPM	Section 10: NE4 Section 11: All Lands Section 12: W2, NE4, N2SE4	5/24/2010	1,361.00
124383	Township 25 South, Range 34 East, NMPM	Section 6: W2 Section 7: W2NW4	5/24/2010	398.00
			TOTALS:	76,067.03



Serial Number	Township and Range	Sections and Descriptions	BLM Approval Date	Acreage
121100	Township 24 South, Range 35 East, NMPM	Section 27: E2, W2SW Section 28: N2NE, E2SE Section29: W2 Section 31: E2, NW, SWSW Section 33: SW, W2SE, NENE Section 34: NE, S2SW, N2SE, NWNW Section 35: S2NE, S2SE	12/1/2008	2,200.00
121101	Township 24 South, Range 35 East, NMPM	Section 23: All Lands (640ac) Section 24: All Lands (640 ac) Section 25: All Lands (640 ac) Section 26: W2, E2NE, E2SE	12/1/2008	2,400.00
121102	Township 24 South, Range 35 East, NMPM	Section 17: N2, SE Section 20: All Lands (640 ac) Section 21: All Lands (640 ac) Section 22: NE, N2SE, NESW, SENW	12/1/2008	2,080.00
121103	Township 24 South, Range 35 East, NMPM	Section 9: All Lands (640 ac) Section 12: All Lands (640 ac) Section 13: All Lands (640 ac) Section 14: SWNW, E2NW, E2, SW	12/1/2008	2,520.00
121104	Township 24 South, Range 35 East, NMPM	Section 1: W2, W2E2 Section 6: All Lands (640 ac) Section 7: W2, W2SE Section 8: E2, SW, E2NW Section 11: NENE Section 18: SW Section 19: SW Section 35: SENW, SESW	12/1/2008	2,520.00
121105	Township 24 South, Range 34 East, NMPM	Section 9: N2, SE Section 11: W2W2, E2E2 Section 12: E2, SW, E2NW Section 13: All Lands (640 ac) Section 19: N2, SE, N2SW	12/1/2008	2,560.00
121106	Township 24 South, Range 34 East, NMPM	Section 23: E2, SWSW Section 24: SE, NESW, SENE, N2NW Section 25: W2W2, E2E2 Section 26: W2 Section 27: S2, E2NE Section 34: NW, N2SW, W2SE Section 35: E2	12/1/2008	2,360.00
121107	Township 23 South, Range 34 East, NMPM	Section 6: Lots1-7, SENW, E2SW, S2NE, SE Section 7: Lots1-2, E2NW, NE Section 18: Lots3-4, E2SW, SE Section 19: Lots1-4, E2W2, E2	12/1/2008	1,892.00



Serial Number	Township and Range	Sections and Descriptions	BLM Approval Date	Acreage
21108	Township 24 South, Range 34 East, NMPM	Section 1: Lots1-4, S2N2, N2SW, SE Section 3: Lots1-2, S2NE, SE Section 4: Lots1-2, S2NE, SE, S2SW, NWSW Section 5: Lots3-4, S2NW, SW Section 7: Lots1-2, E2NW, NE Section 8: N2, SW	12/1/2008	2,439.00
121109	Township 24 South, Range 33 East, NMPM	Section 11: N2 Section 12: All Lands (640 ac) Section 13: SE, E2SW Section 14: W2, W2E2 Section 23: All Lands (640 ac)	12/1/2008	2,320.00
121110	Township 24 South, Range 33 East, NMPM	Section 24: W2 Section 25: W2 Section 26: All Lands (640 ac)	12/1/2008	1,280.00
121111	Township 23 South, Range 33 East, NMPM	Section 24: All Lands (640 ac) Section 25: All Lands (640 ac) Section 26: All Lands (640 ac) Section 28: All Lands (640 ac)	12/1/2008	2,560.00
121112	Township 24 South, Range 34 East, NMPM	Section 17 all Lands (640 ac) Section 18: Lot1, NENW, NE Section 20: All Lands (640 ac) Section 21: N2, SW, W2SE Section 22: N2, SESE	12/1/2008	2,440.00
121113	Township 23 South, Range 33 East, NMPM	Section 13: S2 Section 14: S2 Section 21: All Lands (640 ac) Section 23: All Lands (640 ac)	12/1/2008	1,920.00
121114	Township 23 South, Range 33 East, NMPM	Section 1: Lots1-4, S2N2, S2 Section 4: Lots1-4, S2N2, S2 Section 5: Lots1-4, S2N2, S2 Section 6: Lots1-7, E2SW, SENW, S2NE, SE	12/1/2008	2,547.00
121115	Township 23 South, Range 33 East, NMPM	Section 7: Lots1-4, E2W2, E2 Section8: All Lands (640 ac) Section 9: All Lands (640 ac) Section 11: All Lands (640 ac)	12/1/2008	2,551.00
123690	Township 23 south, Range 32 East NMPM	Section 24: All Lands (640 ac) Section 25: All Lands (640 ac) Section 26: N2 Section 27: N2		1,920.00



Serial Number	Township and Range	Sections and Descriptions	BLM Approval Date	Acreage
123691	Township 23 south, Range 32 East, NMPM	Section 1: SW4, W2SE4 Section 3: All Lands (640 ac) Section 4: All Lands (640 ac) Section 5: All Lands (640 ac)		2075.00
123692	Township 23 south, Range 32 East, NMPM	Section 6: All Lands Section 8: All Lands Section 9: All Lands Section 10: All Lands		2,582.00
123693	Township 23 south, Range 32 East, NMPM	Section 12: W2, W2E2 Section 13: All Lands (640 ac) Section 22: All Lands (640 ac) Section 23: All Lands (640 ac)		2,400.00
123694	Township 23 south, Range 32 East, NMPM	Section 28: All Lands Section 29: All Lands Section 30: All Lands Section 33: All Lands		2580.00
124371	Township 22 South, Range 33 East, NMPM	Section 29: S2	5/24/2010	320.00
124371	Township 22 South, Range 32 East, NMPM	Section 19: S2 Section 20: S2 Section 21: All Land Section 22: All Land	5/24/2010	1,929.00
124372	Township 22 South, Range 32 East, NMPM	Section 23: All Lands Section 24: S2 Section 25: All Lands Section 26: All Lands	5/24/2010	2,560.00
124373	Township 22 South, Range 32 East, NMPM	Section 27: All Lands Section 31: All Lands Section 34: All Lands Section 35: All Lands	5/24/2010	2,260.72
124374	Township 22 South, Range 31 East, NMPM	Section 23: All Lands Section 24: All Lands Section 25: All Lands Section 26:All Lands	5/24/2010	1,200.00
124375	Township 22 South, Range 31 East, NMPM	Section 35: All Lands	5/24/2010	640
124375	Township 23 South, Range 31 East, NMPM	Section 1: All lands Section 11: NE4 Section 12: All Lands	5/24/2010	1,159.00
124375	Township 23 South, Range 32 East, NMPM	Section 1: NW4, W2NE4	5/24/2010	240.00



Serial Number	Township and Range	Sections and Descriptions	BLM Approval Date	Acreage
124376	Township 23 South, Range 32 East, NMPM	Section 7: All Lands Section 11: All Lands Section 14: All Lands Section 15: All Lands	5/24/2010	2,263.92
124377	Township 23 South, Range 32 East, NMPM	Section 17: All Lands Section 18: N2 Section 20: N2 Section 21: S2 Section 18: SE4 Section 20: SE4 Section 21: NW4, W2NE4	5/24/2010	2,492.07
124378	Township 23 South, Range 32 East, NMPM	Section 26: S2 Section 27: S2 Section 28: N2, SE4 Section 34: N2, SE4 Section 35: All Lands	5/24/2010	2,240.00
124379	Township 23 South, Range 33 East, NMPM	Section 19: All Lands Section 20: All Lands Section 29: All Lands Section 30: All Lands	5/24/2010	2,543.32
124380	Township 23 South, Range 34 East, NMPM	Section 20: S2, NW4 Section 27: S2, NW4 Section 28: All Lands Section 29: S2, NE4	5/24/2010	2,080.00
124381	Township 23 South, Range 34 East, NMPM	Section 30: All Lands	5/24/2010	640.00
124381	Township 24 South, Range 32 East, NMPM	Section 1: All Lands Section 12: N2	5/24/2010	960.00
124381	Township 24 South, Range 33 East, NMPM	Section 35: All Lands	5/24/2010	633.00
124382	Township 24 South, Range 34 East, NMPM	Section 30: E2, NE4SW4, SE4NW4 Section 31: W2	5/24/2010	720.00
124382	Township 25 South, Range 33 East, NMPM	Section 1: All Lands Section 3: All Lands	5/24/2010	1,281.00
124383	Township 25 South, Range 33 East, NMPM	Section 10: NE4 Section 11: All Lands Section 12: W2, NE4, N2SE4	5/24/2010	1,361.00
124383	Township 25 South, Range 34 East, NMPM	Section 6: W2 Section 7: W2NW4	5/24/2010	398.00
			TOTALS:	76,067.03



Tract Number	Township and Range	Sections and Descriptions	Award Date	Acreage
HP-0030	Township 22 South, Range 32 East, NMPM	Section 32	5/24/2010	640
HP-0031	Township 22 South, Range 32 East, NMPM	Section 36	5/24/2010	640
HP-0031	Township 23 South, Range 32 East, NMPM	Section 1: E2SE4, SE4NE4, Lot 1 Section 12: E2E2	5/24/2010	319.95
HP-0032	Township 23 South, Range 32 East, NMPM	Section 3: SW4NW4 Section 4: SE4NE4	5/24/2010	80
HP-0033	Township 23 South, Range 32 East, NMPM	Section 2: S2, S2N2, lots 1,2,3,4	5/24/2010	638.52
HP-0034	Township 23 South, Range 32 East, NMPM	Section 16: All	5/24/2010	640
HP-0035	Township 23 South, Range 32 East, NMPM	Section 21: SE4NE4	5/24/2010	40
HP-0036	Township 22 South, Range 33 East, NMPM	Section 30: E2, E2W2, Lots 1,2,3,4 Section 31: E2, E2W2, Lots 1,2,3,4 Section 32: All Section 33: All	5/24/2010	2533.44
HP-0037	Township 23 South, Range 33 East, NMPM	Section 2: S2, S2N2, Lots 1,2,3,4 Section 3: S2, S2N2, Lots 1,2,3,4 Section 10: All	5/24/2010	1917.64
HP-0038	Township 23 South, Range 33 East, NMPM	Section 12: All	5/24/2010	640
HP-0039	Township 23 South, Range 33 East, NMPM	Section 15: All Section 16: All Section 17: E2, E2NW4, SW4 Section 18: E2, E2W2, Lots 1,2,3,4	5/24/2010	2471.4
HP-0040	Township 23 South, Range 33 East, NMPM	Section 22: All Section 27: All Section 33: All Section 34: All	5/24/2010	2560
HP-0041	Township 23 South, Range 33 East, NMPM	Section 35: All Section 36: All	5/24/2010	2554.8
HP-0041	Township 23 South, Range 34 East, NMPM	Section 31: E2, E2W2, Lots 1,2,3,4		

Table 4-2 New Mexico State Leases Included in the Ochoa Project



Tract Number	Township and Range	Sections and Descriptions	Award Date	Acreage
HP-0042	Township 24 South, Range 33 East, NMPM	Section 1: S2, S2N2, Lots 1,2,3,4 Section 2: S2, S2N2, Lots 1,2,3,4 Section 3: S2, S2N2, Lots 1,2,3,4	5/24/2010	1918.6
HP-0042	Township 24 South, Range 34 East, NMPM	Section 6: SE4, S2NE4, E2SW4, SE4NW4, Lots 1,2,3,4,5,6,7	5/24/2010	636.24
HP-0043	Township 23 South, Range 33 East, NMPM	Section 32: All	5/24/2010	640
HP-0043	Township 24 South, Range 33 East, NMPM	Section 4: S2, S2N2, Lots 1,2,3,4 Section 5: S2, S2N2, Lots 1,2,3,4 Section 8: All	5/24/2010	1918.76
HP-0044	Township 23 South, Range 32 East, NMPM	Section 36: All	5/24/2010	640
HP-0044	Township 23 South, Range 33 East, NMPM	Section 31: E2, E2W2, Lots 1,2,3,4	5/24/2010	632.36
HP-0044	Township 24 South, Range 33 East, NMPM	Section 6: SE4, S2NE4, E2SW4, SE4NW4, Lots 1,2,3,4,5,6,7 Section 7: E2, E2W2, Lots 1,2,3,4	5/24/2010	1268.12
HP-0045	Township 24 South, Range 33 East, NMPM	Section 9: All Section 10: All Section 15: All	5/24/2010	1920
HP-0046	Township 23 South, Range 33 East, NMPM	Section 13: N2 Section 14: N2	5/24/2010	640
			TOTALS:	25,889.83



Figure 4-2 shows the areas held by ICP under BLM prospecting permits in the Ochoa Project area, along with the 13 new prospecting permit applications that are in the final stages of review and approval. These new prospecting permits are located in T22S R31E, T22S R32E, T22S R33E, T23S R31E, T23S R32E, T23S R33E, T23S R34E, T24S R32E, T24S R32E, T24S R34E, T25S R33E, and T25S R34E. ICP will have an exclusive option to lease these tracts from the BLM during the two-year option or extension periods.

ICP plans to locate as many facilities as possible on leased BLM land. The final location of facilities will be determined during the preliminary feasibility and feasibility studies and according to negotiations with the land owners, with whom ICP has established and maintains good relations.



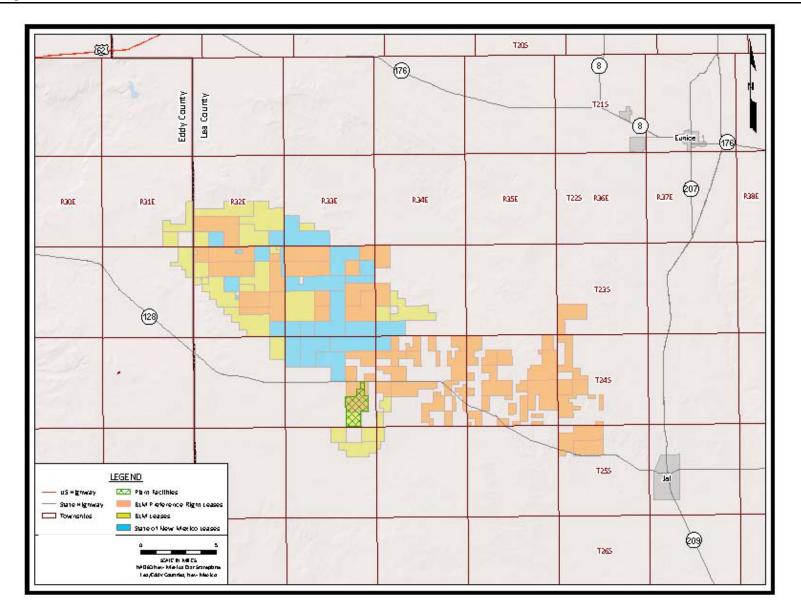


Figure 4-2 Claim Boundary Map



4.3 <u>Royalties</u>

A 2.5% gross royalty on potash revenue is payable either to the federal or state government, depending on whose land the polyhalite was extracted from. An additional royalty of \$1/ton for potassium product produced is payable to a single individual person. An additional net 3%, which can be reduced to 1.5% by paying a onetime lump sum of \$9 million, is not payable until all capital required to build the project is recovered.

4.4 <u>Environmental Liabilities</u>

The permitting schedule for the Ochoa Project will be significantly influenced by the National Environmental Policy Act (NEPA) process. NEPA typically requires baseline studies for at least one year followed by a public review and comment period for scoping and development of draft environmental assessment or environmental impact statement. Other anticipated permitting requirements include mine registration, air, underground water, state trust land leases, explosives, and utility location.

Proposed mining projects are typically evaluated for a range of social, economic, cultural, and environmental impacts in response to NEPA and state permitting regulations. The Ochoa Project area is sparsely vegetated. Cattle graze on much of the Ochoa property, and petroleum exploration and development is widespread in the immediate vicinity. A small amount of oil and gas production occurs within the project area, though wells are generally older and are experiencing declining production. Wildlife includes jack rabbits, desert cotton tail, Ord's kangaroo rat, the plains pocket mouse, rattlesnakes, road runners, and northern grasshopper mouse. Threatened species include the lesser prairie chicken or grouse and sand lizard. Larger species include mule deer, pronghorn antelope and coyote. Reptiles include the side-blotched lizard. Bird species include raptors, loggerhead shrike, Pyrrhuloxias, and black-throated sparrows.



5. <u>ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE,</u> <u>AND PHYSIOGRAPHY</u>

5.1 <u>Accessibility, Infrastructure, and Local Resources</u>

The Ochoa Project is readily accessible via State Highway 128 and an extensive network of gravel roads. The property is traversed by County Road 2, as well as two track roads and primitive jeep roads. Airports are located in Hobbs (Lea County) and Carlsbad (Eddy County). A rail line runs through Jal, 15 miles to the east of the project area, south to El Paso, Texas, and a rail spur connects to the Waste Isolation Pilot Plant site 10 miles to the west.

The project area is located in Lea County of southeast New Mexico, near the border between Lea and Eddy County. According to the 2010 census, the population of Lea County is 64,727 and the population of Eddy County is 53,829 people. The town of Jal, with a population of about 2000, is the nearest community to the project, just a few miles southeast of ICP's land holdings on Highway 128. Food, fuel, and limited services are available in Jal, and heavy equipment, industrial supplies, and mining support services are available in Carlsbad, Hobbs, and Albuquerque. Experienced labor for construction, mining, and processing operations is available from nearly all of the southeastern New Mexico communities, including Carlsbad, Loving, and Hobbs.

There are active and plugged oil and gas wells within the limits of the project area, along with roads, power lines, and pipelines associated with oilfield development. Existing infrastructure includes a number of small dirt roads for vehicle access to the wells. A high voltage power line is located near the southern edge of the property, and electric power is supplied by Xcel Energy.

5.2 <u>Topography, Elevation, Vegetation, and Climate</u>

The Ochoa Project is located in the Pecos Valley section of the southern Great Plains physiographic province. Terrain is relatively flat with minor arroyos and low-quality, semi-arid rangeland (Figure 5-1). Elevation ranges from 3,100 ft to 3,750 ft above sea level. Vegetation is dominated by mesquite, shinnery oak and coarse grasses. Soil cover is composed of caliche rubble and wind-blown sand. The northern portion of the project is situated in sandy dune country which supports limited plant species.



The climate of the Ochoa Project area is semi-arid with generally mild temperatures. The prevailing winds are from the southeast during the summer months and from the west during the winter. Winter temperatures range from -20°F to 50°F. Summer daytime high temperatures are typically above 90°F with nighttime lows of 70°F. Average annual precipitation is about 13 in., about half of which is associated with thunder storms that occur from June through September. Exploration, mining, and mineral processing can be carried out year-round on the Ochoa property.



Figure 5-1 Typical Terrain and Vegetation of the Ochoa Project



6. <u>HISTORY</u>

The Delaware Basin has been explored for hydrocarbons since the early 20th century, but it has not been the subject of any previous exploration for polyhalite. Some interest in commercially producing polyhalite for potassium sulfate was generated in the 1930s, when the United States Bureau of Mines (USBM) investigated such a process for use in Texas. Economic production of potash from potassium chloride, langbeinite, and sodium chloride minerals in the Carlsbad area significantly curbed interest in and precluded the use of the polyhalite production process. ICP began preliminary polyhalite exploration in 2008, when they applied for exploration permits and initiated a scoping study. The 2008 scoping study prepared by Mincon indicated that the Ochoa area had good potential for a sizeable polyhalite deposit.

ICP drilled 13 core holes at the Ochoa Project prior to August 2009. The August 2009 Preliminary Economic Assessment completed by Gustavson supported the prospects for polyhalite production from the Ochoa Project. As of September 1, 2011, ICP has completed a total of 20 core holes and has analyzed the chemical composition of polyhalite samples obtained during drilling. A mineral processing and metallurgical testing program is currently underway.



7. <u>GEOLOGICAL SETTING</u>

7.1 <u>Regional Geology</u>

The Ochoa Project lies at the northeastern margin of the Delaware Basin (Figure 7-1). The Delaware Basin is a structural sub-basin of the large Permian basin that dominated the region of southeast New Mexico, West Texas, and northern Mexico from 265 Ma to 230 Ma. The Permian Basin is an asymmetrical depression formed on top of Precambrian basement rocks. Marine sediments accumulated in the basin throughout the Paleozoic Era. The slow collision of the North American and South American crustal plates resulted in tectonic sub-division of the Permian Basin into numerous sub-basins, of which the Delaware and Midland basins are the largest (Ward et al. 1986).

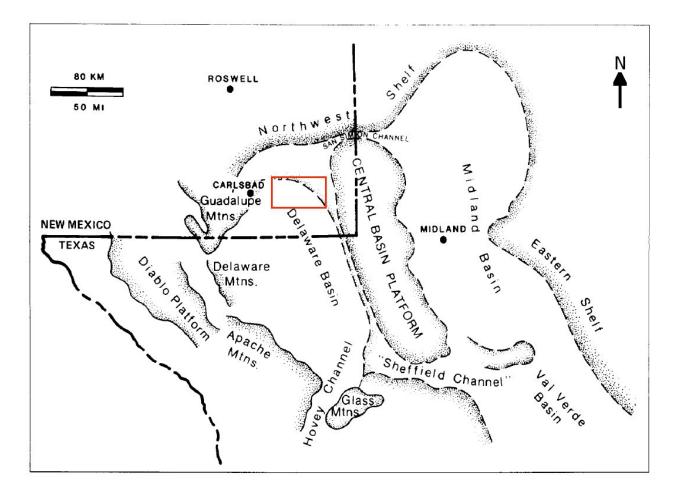


Figure 7-1 Delaware Basin, Ochoa Project Boundary in Red (Modified from Ward et al. 1986)



7.2 Local Geology

The sedimentary sequence of the Delaware Basin is composed of deep water siliciclastics, shelf carbonates, marginal marine evaporites, and terrestrial red beds. The deep water siliciclastics and shelf carbonates occur well below the horizon of interest and are not discussed further. Extensive and thick evaporate deposits occur throughout the Late Permian (Ochoan-age) rocks within the basin. Ochoan-age sedimentary deposits, specifically the Castile, Salado, and Rustler Formations (Figure 7-2), are the primary focus of polyhalite exploration. Collectively, the Castile, Salado and Rustler evaporite-bearing formations are over 4,000 ft thick.

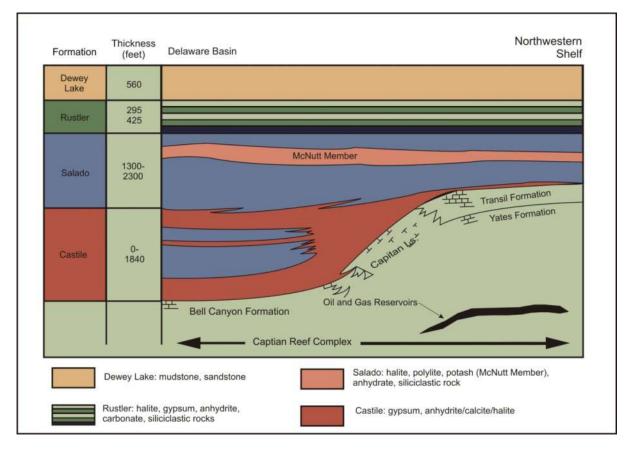


Figure 7-2 Conceptual Cross-section of the Delaware Basin

7.2.1 *Castile Formation*

The Castile Formation is the oldest evaporite cycle of the Ochoan series in the Delaware Basin. The Castile Formation is composed of anhydrite, halite, and limestone with anhydrite interbeds.



7.2.2 <u>Salado Formation</u>

The Salado Formation consists of cyclic anhydrite, halite, and clay deposits. Potassium minerals in the Salado Formation occur as interbeds within the anhydrite and halite stratigraphic units. Potash occurs in the form of polyhalite in anhydrite, and as sylvite, langbeinite or carnallite in halite. The Salado Formation is divided into three units, the upper, lower, and middle, in the northern portion of the Delaware Basin.

7.2.3 <u>Rustler Formation</u>

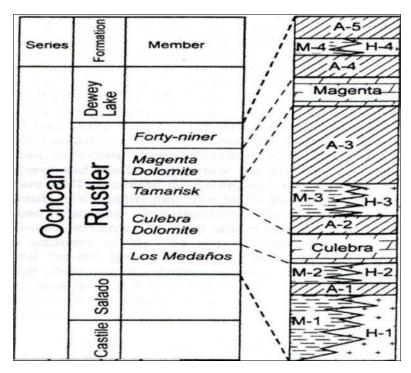
The target horizon of ICP's Ochoa Project is the polyhalite found within the Rustler Formation. The Rustler Formation is composed of anhydrite, halite, dolomite, sandy siltstone, and polyhalite (Jones 1972). There are five recognized members of the Rustler Formation, which are, from oldest to youngest, the Lost Medaños, Culebra, Tamarisk, Magenta, and Forty-niner (Figure 7-3). Polyhalite occurs in the Tamarisk Member of the Rustler Formation.

- The Los Medaños Member consists of siliclastics, halitic mudstones and muddy halite, and sulfate minerals, principally anhydrite (Powers and Holt 1999).
- The Culebra Member consists of pinkish gray dolomite.
- The Tamarisk Member is comprised of three sub-units: a lower basal anhydrite, a middle halitic mudstone, and an upper anhydrite. Polyhalite occurs within the upper anhydrite. The thickness of the Tamarisk varies principally as a function of the thickness of the middle halite unit.
- The Magenta Member is predominantly dolomite with minor amounts of gypsum.
- The Forty-niner Member has a similar general stratigraphy to the Tamarisk. It is made up of a lower and an upper anhydrite with a middle siltstone.

7.2.4 <u>Dewey Lake Formation</u>

The Dewey Lake Formation is composed of mudstone, siltstone, claystone, and interbedded sandstones consistent with typical terrestrial red beds. The formation is divided into upper and lower members. The lower Dewey Lake is characterized by gypsum filled fractures, and the upper Dewey Lake is cemented by carbonate (Beauheim and Holt 1990).





NOTE: Units on the right labeled A- are dominated by anhydrite, those labeled H- are halite dominated, and those labeled M- are mudstone or clay.

Figure 7-3 Ochoan Stratigraphic Mapping Units Defined by Powers (2006)

7.3 <u>Property Geology</u>

The geology of the Ochoa Project is characterized by a simple structural setting and conformable stratigraphic sequences. The stratigraphic section of interest, the Rustler Formation, is present in its entirety throughout the project area. In general, the Ochoa property overlies a gentle, symmetrical synform with a northwest-southeast axial orientation. The synform appears to have full closure to the northwest and dips slightly to the southeast. Borns and Shaffer (1985) completed a regional correlation of 276 borehole geophysical logs to identify the horizons of the Ochoan-age rocks in the Delaware Basin. Correlation of the additional geophysical logs carried out by ICP has improved the understanding and resolution of the subsurface geology in the Ochoa Project area. The horizon of interest in the project area is interpreted to have accumulated in a shallow marginal marine setting, specifically a lagoon environment.

7.4 <u>Mineralization</u>

Polyhalite mineralization within the Ochoa Project area occurs within the lower half of the Tamarisk Member of the Rustler Formation. The polyhalite is interpreted to have formed in a paleolagoon of Ochoan age. Polyhalite mineralization occurs throughout a roughly oval shaped



area approximately 20 miles in length and approximately 9 miles in width. The mineralized area is characterized by a bed thickness greater than 4 feet across the majority of the area, and a narrow peripheral zone that contains bed thickness from 0 to 4 feet thick.

8. <u>DEPOSIT TYPES</u>

Potash is potassium-bearing, chemical sedimentary mineral deposit that is the result of low temperature chemical processes governed by evaporative concentration of a fluid such as seawater or freshwater. Bedded potash deposits commonly occur in sedimentary basins that have restricted connection to more dilute fluid. Diagenetic processes play an important role in evaporite mineral alteration and the production of potash ore minerals.

Potash mineralization occurs as assemblages of predominantly potassium chloride or predominantly potassium sulfate minerals. These assemblages may be interbedded or adjacent to one another, but rarely occur as a mixed assemblage in a single sedimentary bed. Individual potash mineral deposits can typically be correlated with geophysical logs and mapped over large areas.

Polyhalite is a hydrated sulfate of potassium, calcium, and magnesium. Polyhalite occurs in abundance throughout the known potash deposits of southeastern New Mexico, but has not previously been considered a mineral of economic importance. Polyhalite reportedly also occurs in ancient evaporate deposits in West Texas; Hallstatt, Austria; Galicia in Poland; Stassfurt, Germany; and the Middle East. Polyhalite occurs in direct association with anhydrite and is also commonly associated with kainite, carnallite, and sylvite.

Modern occurrences of polyhalite include Ojo de Liebre, Mexico; Salar de Uyuni, Bolivia; Sebkha el Melah, Tunisia; and Tuz Gölü, Turkey. These modern occurrences are thought to form through the diagenetic alteration of gypsum. Alteration is the result of the chemical reaction of gypsum with increasingly potassium and magnesium concentrated brines, formed in the evaporative facies of a sedimentary basin. Mineralization at Ochoa is interpreted to have formed through identical processes in a marine lagoon setting.



9. <u>EXPLORATION</u>

A reconnaissance area of approximately 1,000 mi² was studied in order to identify major geologic features and determine the basic distribution of lithologicic units, including polyhalite mineralization. This work relied on published reports and was supplemented with petroleum data records and well logs obtained from public and commerical sources. A general 'target' geologic framework, from the top of the Rustler Formation down to the top of the Salado Formation, was established. Polyhalite mineralization occurs approximately midway between the two contacts.

ICP has aquired 812 geophysical borehole logs from various exploration sources. Wireline log readings from these boreholes were used to interpret subsurface lithology.

9.1 <u>Subsurface Interpretation</u>

Fifteen petrophysical wireline log markers were defined within the target geologic framework. Six of these are formal lithostratigraphic units that are encountered throughout the study area. The remaining nine markers are associated with individual sedimentary beds within the formal lithostratigraphic units, which exhibit unique petrophysical responses (Table 9-1).



	Marker	Type of marker	Lithology
1	Top Rustler	Stratigraphic – formation	Anhydrite
2	APH_01	Petrophysical	Siltstone-shale within Forty-niner member
3	APH_02	Petrophysical	
4	Top Magenta	Stratigraphic - member	Dolomite
5	Top Tamarisk	Stratigraphic – member	Anhydrite
6	Halite_U	Petrophysical – unknown origin; appear to be the base of the upper half of the Tamarisk anhydrite and marks the change to a lower zone of anhydritic halite and siltstone	None – reflects division between upper and lower anhydrite zones
7	APH_05	Petrophysical	None – may be a bedding plane feature
8	APH_06	Petrophysical	None – may be a bedding plane feature
9	Top Poly	Petrophysical	Polyhalite, depth of gamma high may occur below depth of density log because anhydrite density is similar to polyhalite density
10	Base Poly	Petrophysical	Transition to underlying anhydrite
11	BPH_01	Petrophyscial	Top shale or anhydritic shale
12	BPH_02	Petrophyscial	Base of shale zone, transition to anhydrite
13	Top Culebra	Stratigraphic - member	Silty dolomite
14	Top Los Medaños	Stratigraphic - member	Siltstone, top of thick siltstone sequence, include 1 st anhydrite as part of upper portion of sequence and immediately below siltstone that forms the spike
15	Top Salado	Stratigraphic – formation	Halite

Table 9-1 Summary Petrophysical Markers Defined for Correlation

The effective use of marker correlation and mapping at this stage of exploration is limited to establishing structural framework, estimating lithostratigraphic volumes, and evaluatinge physical trends such as changes in elevation and thickness. At this stage of exploration facies analysis is ongoing. Figure 9-1 is an example of wireline borehole logs correlated using the 15 markers.



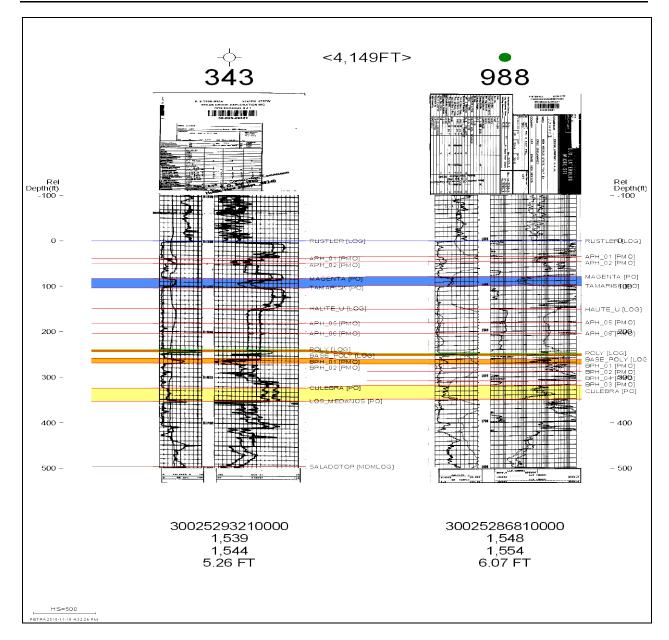


Figure 9-1 Typical Wireline Logs with Marker Horizons

Some of the markers were not present throughout the entire reconassiance area (e.g., Halite_U, APH_05, APH_06, Top Polyhalite, and Base Polyhalite), indicating a limit to the mineralization and presumed delineation of the paleoshorline. Structural maps with contoured surfaces of the marker bed horizons were created based on the correlated wireline logs.

Previous studies by others have concluded that the current study reconnaissance area is a depocenter within the Delaware Basin. The results of correlating and mapping the subsurface



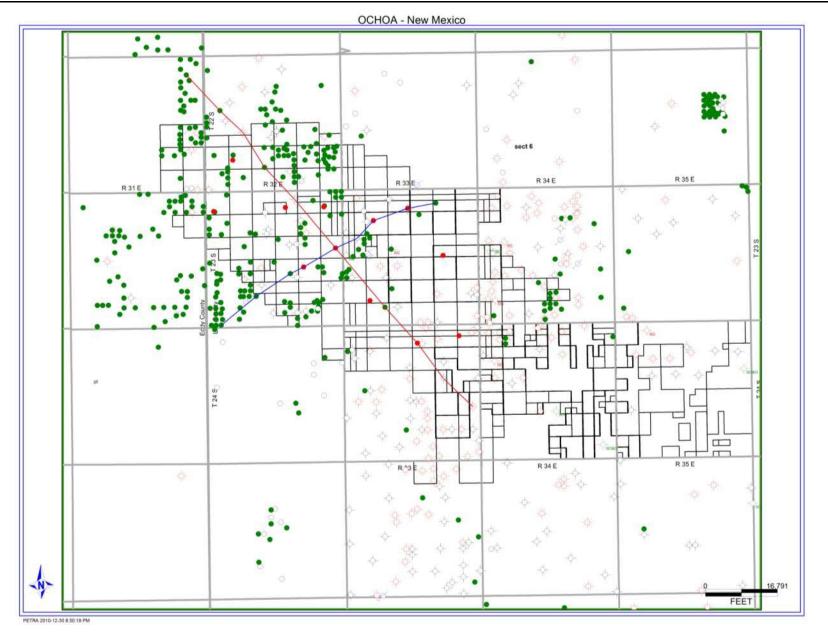
markers of the Rustler Formation support that hypothesis, and suggest the following with regard to the structure of the basin:

- Elongate depression oriented northwest-southeast
- Closed in the northwest and open but restricted in the southeast
- Bounded on the east by a well-defined ridge (50 to 200 ft relief, 2 to 3 mi wide)
- Bounded on the west and north by broad sloping ramp
- No disruptions identified (e.g., sharp elevation changes, sharp isopach variations, or sharp slope changes from marker to marker)
- No significant migration of basin depocenter axis or other framework features including highs, lows, and edges
- Variation in thickness between markers is very consistent, but clearly thin or truncate toward and at the edges of the sub-basin
- No clear evidence of significant faults

The geology of the project area is representative of a depositional basin that has experienced uplift and minor structural deformation. The interpretation of a structurally quiescent depositional basin is supported by strong marker correlation, consistent thicknesses between markers, consistent slope of surfaces within the sub-basin, and the thinning trend and truncation of markers near areas where underlying markers begin to shallow in depth. The present shape and slope of the basin is probably enhanced by post-lithification events in the region, the most important being salt dissolution and subsidence in the Nash Draw to the west and the San Simon Swale to the east.

The locations of two cross sections demonstrating the shape of the subsurface layers are shown in Figure 9-2. The northwest-southeast cross-section (Figure 9-3) is shown looking eastward from the western portion of the property. This section is approximately coincident with the axis of the basin. Figure 9-4 shows a west-east cross-section looking north, and illustrates the symmetry of the basin. These cross sections are based on data from only a few widely spaced wells, which are shown equally, rather than proportionally, spaced. The large distance between wells and very limited vertical variation in beds and markers is difficult to portray in small page size diagrams.









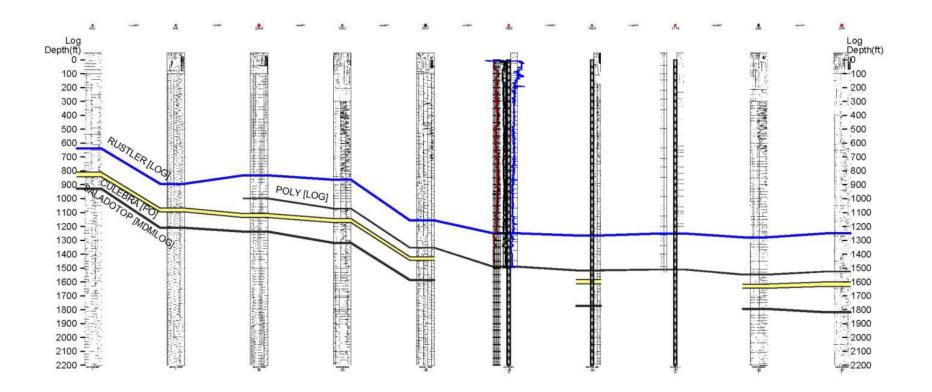


Figure 9-3 Northwest-southeast Cross Section along Basin Axis



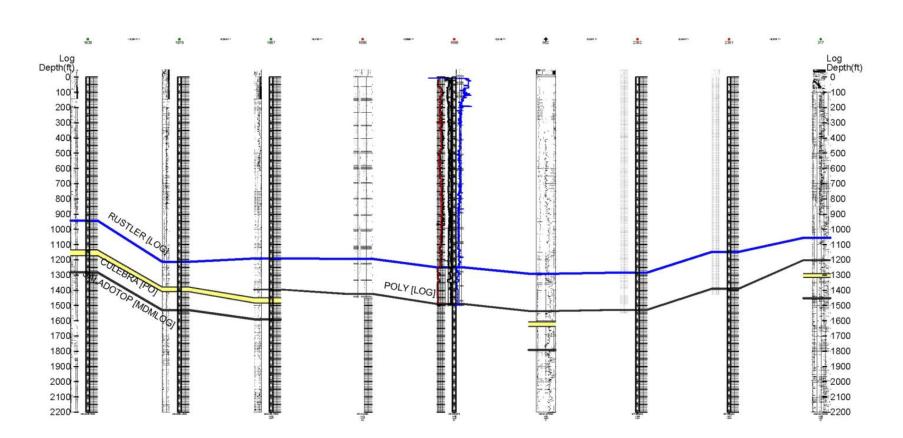


Figure 9-4 West-east Cross Section



10. DRILLING

ICP successfully drilled, cored, logged, and plugged and abandoned 20 vertical exploration holes throughout the permit area during a two-phase exploration drilling campaign.

Each drill hole was drilled as an upper portion and a lower portion. The upper portion was drilled using a rotary drill and cased for borehole integrity and aquifer protection. The upper portion contained formations from the ground surface to within ~50-75 ft of the top of the polyhalite mineralized bed. Coring was implemented from this point for the purpose of analytical data collection.

10.1 <u>Procedures and Conditions</u>

Drilling conditions in the Ochoa Project are good due to gently rolling terrain and easy access provided by oil and gas well roads. Pad sites are constructed when needed. No aquifers were encountered during the ICP drilling program.

10.1.1 Rotary Drilling

Rotary drilling was used to advance each hole through the Dewey Lake Formation and into the upper portion of the Rustler Formation. This portion of the drill hole was advanced using a water based gel chemical drilling fluid. Rock chips were collected in 5-ft intervals, washed in water, logged for lithologic description, placed in chip trays, and transported to and stored at the core lab in Hobbs, NM. The geologist at the rig assessed cuttings, rig performance, and offset well correlation to identify the approximate depth above the polyhalite mineralization at which to begin core drilling and collection. In exploration Phases 1 and 2, this depth was approximately 20 ft above the polyhalite seam and was delineated by an anhydrite marker bed, (i.e. APH05 and APH06). In Phase 2B drilling, core was also recovered for roof rock geotechnical analysis, and the core point was moved to roughly 50 to 75 ft above the polyhalite seam.

10.1.2 *Diamond Core Drilling*

For the target evaporite intervals, a salt saturated drilling fluid was used to minimize dissolution and alteration of water soluble minerals, which were predominantly halite and polyhalite. Use of the salt saturated drilling fluid was initiated prior to drilling to core point. This provided sufficient time to establish stable chemical and rheological properties in the drilling fluid both the active and reserve drilling fluid systems. At the core point, the rotary drilling assembly was



removed from the hole and replaced with a 40 foot core barrel and bottom hole assembly. The coring tools were run in the hole and a 40 foot core run was completed. The core barrel and drill string were then tripped out and the core recovered. The process was repeated if a second or third core run was desired.

10.1.3 <u>Wireline Logs</u>

Upon completion of coring, the holes were logged with wireline petrophysical tools. Logs collected during Phase 1 work include total gamma, caliper, and standard electric logs. No density or neutron logs were acquired during Phase 1 exploration. The specific tools used in Phase 1 varied and presentation was not standardized. Phase 2 and 2B holes were logged using a consistent suite of tools, and the logs collected include spectral gamma, laterolog and induction electrical, formation density, and neutron density logs (Table 10-1).



	Hole ID	Caliper*	Gamma	Spectral Gamma	Sonic	Density	Neutron	Resistivity*	Directional Survey
E	ICP-021(001)	х	х	n	х	n	n	n	х
ograr	ICP-022(002)	х	х	n	х	n	n	n	х
ing Pi	ICP-026(003)	х	х	n	n	n	n	n	х
Phase 1 Drilling Program	ICP-047(004)	х	х	n	х	n	n	n	х
hase	ICP-043(005)	х	х	n	n	n	n	х	х
<u> </u>	ICP-051(006)	х	х	n	х	n	n	х	х
	ICP-042(007)	х	х	х	х	x	х	х	х
ram	ICP-045(008)	х	x	х	x	x	x	x	х
Prog	ICP-048(009)	х	x	х	х	x	х	х	x
Phase 2 Drilling Program	ICP-062(010)	х	x	х	х	x	х	х	x
se 2 🗆	ICP-063(011)	х	х	р	х	x	р	х	х
Pha	ICP-061(012)	х	x	х	х	х	х	х	х
	ICP-056(013)	х	x	х	х	x	х	х	x
	ICP-046(014)	х	x	x	x	x	x	x	x
gram	ICP-053(015)	х	x	х	х	x	х	х	x
g Proç	ICP-005(016)	х	х	х	х	р	х	х	x
Drillinç	ICP-078(017)	х	x	x	x	х	x	x	x
Phase 2B Drilling Program	ICP-076(018)	х	x	х	x	x	x	x	x
Phase	ICP-058(019)	х	х	x	х	х	х	x	x
	ICP-059(020)	х	x	x	x	х	x	x	х

Table 10-1 Summary of Wireline Logs Collected

*1-arm caliper run in all holes, 3-arm caliper run in Phase 2 and 2B holes; resistivity logs variously included guard, induction, and normal.

 $\mathbf{N} = \mathbf{not} \ \mathbf{run}.$

 \mathbf{P} = hole problems prevented complete run.



10.1.3.1 <u>Collar Surveys</u>

ICP commissioned commercial surveying companies to survey the location of each of the 20 drill holes completed. Drill hole collar location information is presented in Table 10-2, and drill hole locations are shown in plan view on Figure 10-1.

Wall ID		Dhasa	Survey	Locations in NAD 83 I	Projection
Well ID	Drilling Sequence	Phase	Elevation	Latitude	Longitude
ICP021	001	1	3632.97	32° 19' 43.2"	103° 34' 13.9"
ICP022	002	1	3700.71	32° 19' 16.0"	103° 35' 48.5"
ICP026	003	1	3690.11	32° 17' 54.1"	103° 32' 40.2"
ICP047	004	1	3519.44	32° 19' 41.9"	103° 43' 01.5"
ICP043	005	1	3561.29	32° 21' 39.5"	103° 42' 08.4"
ICP051	006	1	3747.04	32° 19' 49.1"	103° 38' 03.2"
ICP042	007	2	3726.82	32° 18' 14.9"	103° 37' 31.7"
ICP045	008	2	3692.37	32° 17' 31.1"	103° 38' 59.2"
ICP048	009	2	3677.52	32° 19' 49.7"	103° 39' 47.1"
ICP062	010	2	3631.85	32° 14' 48.1"	103° 31' 59.0"
ICP063	011	2	3587.33	32° 14' 32.3"	103° 33' 52.3"
ICP061	012	2	3627.05	32° 14' 17.2"	103° 36' 020."
ICP056	013	2	3666.93	32° 16' 11.6"	103° 35' 59.8"
ICP046	014	2B	3673.47	32° 16' 38.0"	103° 35' 02.7"
ICP053	015	2B	3693.52	32° 17' 23.0"	103° 37' 29.1"
ICP005	016	2B	3627.10	32° 16' 07.4"	103° 31' 45.2"
ICP078	017	2B	3664.45	32° 16' 04.9"	103° 33' 43.0"
ICP076	018	2B	3657.16	32° 15' 10.7"	103° 34' 54.3"
ICP058	019	2B	3624.10	32° 14' 19.3"	103° 31' 25.2"
ICP059	020	2B	3607.76	32° 14' 21.5"	103° 33' 06.0"

 Table 10-2
 Drill Hole Collar Location Information



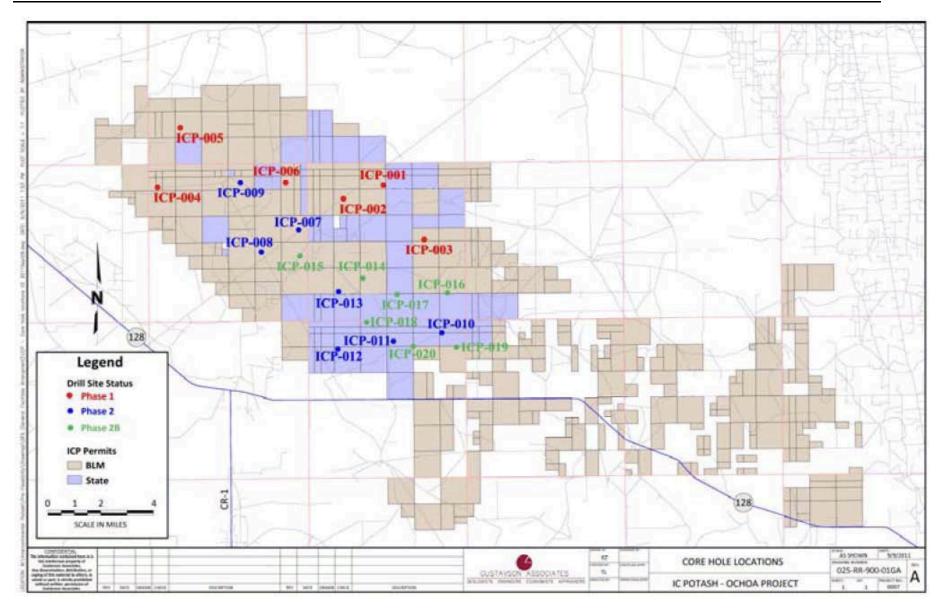


Figure 10-1 Ochoa Drill Hole Locations



10.1.3.2 Downhole Surveys

All drill holes are vertical or sub-vertical. Wireline gyroscopic surveys were acquired during the open hole logging procedures.

10.1.3.3 <u>Core Recovery</u>

Core recovery in the polyhalite and anhydrite zones was excellent in terms of length and minimal alteration of the rock by the salt based drilling fluid. Halite zones above and below the polyhalite reacted with the drilling fluid and partially dissolved. The degree of dissolution depended on the salt saturation condition of the drilling fluid. In most cases, the core was under gauge by less than 1 to 2 mm. Severe reduction in gauge (e.g., 1 cm radial reduction) occurred when the drilling fluid was not properly conditioned or maintained near salt saturation, or when there was a prolonged coring time caused by slow penetration rate at the anhydrite and polyhalite horizons.

Chemical reaction between the drilling fluid and rock-forming minerals does not appear to be a significant issue. Visual appearance of the surface of the core does not show any noteworthy pitting or efflorescence. The core was not washed or scrubbed to remove drilling fluid, and it is possible that some amount of the halite detected by x-ray diffraction (XRD) was drilling fluid contamination.

In addition to core, drill cuttings were collected at 5-ft intervals from spud to total depth. After drilling and logging operations were complete, all wells were plugged from total depth to ground surface.

Drill hole summary reports were compiled for Phase 1 (6 holes), Phase 2 (7 holes) and Phase 2B (7 holes). These reports contain all field operational records, core description and photographic records, and assay data. The reports are on file in the Hobbs business office.



11. SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 <u>Sample Handling and Security</u>

Sodium chloride-saturated drilling fluids were used during coring to ensure minimal alteration of the recovered core. The rate of penetration, revolutions per minute, weight on bit, pump pressure, and strokes per minute were documented as the core was advanced. Upon completion of coring, the drill string was picked up and the core breaks observed and noted. The drill string and core barrel were carefully brought to surface. The core barrel was hung vertically and the core removed. Core removal was recorded on video to ensure that proper orientation of the core was maintained during transportation from the core barrel to the core trailer.

The core was laid out on a core logging table and fit together to reconstruct the continuous core recovered. If core loss was suspected a spacer was place in the layout until the core was matched to the petrophysical logs. The core was measured, and percent core recovery was calculated. Initial core loss and broken/rubble core intervals were documented. The core was cleaned with dry rags and marked with driller depths in foot increments and vertical orientation. The marked core was videoed and boxed with bags of rumbled core, foam spacers to reduce movement of core in the boxes, and desiccant packs. The core box tops and bottoms were labeled on two sides with the drill hole name, core run number, box number, and interval contained in the box. The boxes were sealed with security tape and a chain of custody was completed documenting when the core was transported to the core lab. All cores were transported by an ICP company vehicle from the field to the core lab.

When the core arrived at the core lab, the chain of custody was checked to verify all materials were present and in a secured condition. If security had been compromised, an investigation was initiated. The core was depth corrected to get the most accurate depth for geologic modeling and mine planning. The depth correction also verified lost core intervals.

Depth correcting was conducted by comparing the driller depths and wireline log depths of the casing bottom and key lithology changes. The most confident depth was selected for the corrected depth if a discrepancy existed between the driller depth and wireline log depth. Corrected depths were marked in red permanent marker. The core was compared to the final the



wireline logs to verify or modify the initial core loss intervals documented in the field, as appropriate.

Improved sample handling protocols were instituted in Phase 2B of the project. The whole core was photographed with a Canon EOS Rebel T1i camera mounted on a stationary tri-pod. The core was passed by the camera on a rolling table to keep consistent parameters for all photographs. Each photograph contains an engineer scale, color scale, and a gray scale. The individual photographs were archived and stitched together using computer software to create a single photograph containing well name, lithologic contacts, engineer scale, color and gray scale, and adjusted depths.

The whole core was cut into two halves; one half was then cut into two quarters. One quarter was canted (the outer curved potion of the quarter core was cut off). This eliminated the possibility of sending core altered by the drilling fluid to the lab for analysis. The canted quarters were used as the analytical samples and were cut in 3-in. to 6-in. interval lengths. The samples were assigned a blind number from a sample book which correlates the well name, sample interval, and a sample description to the blind number. The samples were individually vacuum sealed in 6-in. x 10-in., 3-mil poly bags with their respective blind number and sent to the lab. Multiple core runs may have been sent to the lab in a batch, but a single core run was never split between two batches. A chain of custody was completed for each batch of samples sent to the lab, documenting the sample numbers contained in the batch, shipment date, and mode of transfer. A signed copy of the chain of custody was returned to ICP when the package was delivered to the lab.

All retained core was individually vacuum sealed in less than two foot intervals in 6-mil poly tubing with a 1/6 tyvek desiccant pack, humidity indicator, and index card with the well name and interval labeled. All vacuum sealed core intervals were replaced in the appropriate core boxes with adjusted depths labeled on two sides, in red marker, and maximum temperature indicators placed on the inside of the boxes. Core boxes are stacked five boxes high on a back shelf for long term storage after the core is processed.



11.2 Sampling Quality Assurance / Quality Control Program Design

The sampling program utilized duplicate, blank, and standard samples inserted into the sample batches for testing alongside the samples from intervals of interest. This allowed for a check and correction of sample test results, as necessary. Duplicate samples were used to provide a measure of the repeatability of test results, including sample homogeneity and testing procedures. Duplicate samples were assigned a different sample number than their counterpart sample. Blank samples did not contain the material of interest, potassium in this case, and provided a measure of cross-contamination between individual samples as they were prepared and tested. Standard samples have a known composition, which allowed for a comparison between the lab test results and the known composition of the standard. These standards, or standard reference materials (SRM), provide a means of comparison to identify instances and degrees of under- or over-reporting of chemical species in the sample testing results.

An analytical batch consisted of 12 to 20 samples made up of core samples, one or two duplicates, one SRM, and one blank. During Phase 1 exploration, no duplicates were run. SRM consisted of polyhalite, sylvite, langbeinite, or commercial fertilizer; and the blanks were quartz sand. Upon review of the first program, a decision was made that too many standards were being used and the composition of those standards were not well established. The blank (a silicate) was determined to be inappropriate because it was not of similar type to the sample (i.e., sulfate). During Phase 2, SRM was limited to langbeinite, polyhalite, or arcanite (reagent grade K_2SO_4) and reagent grade $CaSO_4$ was used as the blank.

11.3 <u>Sample Preparation and Analysis</u>

During Phase 1 and 2, samples were shipped to two contract labs for preparation and XRD and x-ray fluorescent (XRF) analysis, and to one lab for inductively coupled plasma optical emission spectrometry (OES) and supporting analysis. The results of the different methods of analyses were evaluated, and ICP determined that quantitative XRF and XRD analyses were the most useful in establishing polyhalite grade. A new protocol was established for Phase 2B samples, and this protocol was applied to a new set of Phase 1 and Phase 2 samples in order to standardize all samples and results.



During Phase 2B exploration, ICP standardized the sampling process and began using only XRD and XRF analyses from H&M Analytical Service labs. Samples from Phase 1 and Phase 2 were reanalyzed according to this process in order to standardize the analytical data. The entire amount of each sample was crushed with a jaw crusher to <6 mm and then ground in a Retsch RM100 motorized mortar and pestle to a fine powder (-325 mesh) that was suitable for XRD analyses. The following processing methods were used by H&M Analytical Services in processing the core samples received from ICP:

Quantitative XRD: A small amount of each fine powder was placed into a standard sample holder and put into a Panalytical X'pert MPD Pro X-ray diffractometer using copper (Cu) radiation at 40KV/40mA. Scans were run over the range of $10^{\circ} - 80^{\circ}$ with a step size of 0.0156° and a counting time of 100 seconds per step. Once the diffraction patterns had been collected, crystallographic databases (International Centre for Diffraction Data and Inorganic Crystal Structure Database) were used to identify the minerals present. Finally, quantitative phase analysis was performed with a Rietveld Refinement analysis, which has a typical accuracy of about 1%.

Quantitative and Semi-quantitative XRF: The fluorescence samples were mixed with 20% Paraffin and pressed in a die at 30 tons for 5 minutes to produce a standard 40 mm XRF specimen. Each pellet was then tested on a Bruker S4 Wavelength Dispersive X-ray Fluorescence Spectrometer for elements between sodium (Na) and uranium (U). This analysis uses a spectrometer, a sequential instrument to examine one element at a time using Kilovolt (KV) settings, filters, collimators and monochromators that are optimized for each element.

Semi-quantitative analysis was then performed using the Fundamental Parameters method, a standardless technique. This analytical method takes into account the fluorescence yield, absorption, and matrix effects to estimate the atomic chemical composition. This technique has an accuracy of about 5% for the major elements.

Full quantitative analyses were performed for sodium (Na), chlorine (Cl), magnesium (Mg), sulfur (S), potassium (K), and calcium (Ca). The remaining trace elements were analyzed by a semiquantitative analysis also based on a Fundamental Parameters method. The results are a



hybrid of fully quantitative analysis for the major elements (with \approx rrb%) and semiquantitative analysis for the trace elements (with errors \approx 10%).

12. DATA VERIFICATION

Gustavson personnel visited the Ochoa project on April 28 and 29, 2010, and again on October 12, 2010. During these site visits, Gustavson personnel reviewed drilling operations, sample handling and security, core logging protocols, data management, and QA/QC programs. Detailed discussion regarding drilling methods, sample handling and security, and QA/QC programs is provided in previous sections of this report.

Gustavson's review of the ICP exploration program found that ICP geologists map and sample according to accepted, industry-wide techniques in an organized, systematic, and professional manner. Gustavson independently verified exploration data collected prior to the effective date of this report, September 1, 2011, by checking logs and laboratory data against core samples, field checking survey data, and comparing borehole data reported by ICP to original laboratory certificates. Gustavson finds the quality of data collected to date adequate for use in estimating the mineral resource of the Ochoa Project.



13. MINERAL PROCESSING AND METALLURGICAL TESTING

ICP intends to generate potassium and magnesium sulfate liquors using a process first proposed by the USBM. The USBM conducted extensive study of potassium sulfate generation processes in the 1930s and 1940s (e.g., Conley and Partridge 1944; Wroth 1930), and the fundamentals underlying those processes are now well understood. Potassium sulfate generation methods were demonstrated on a laboratory scale, and parameters needed to implement the processes on an industrial scale were developed. ICP is currently conducting laboratory-scale mineral processing and metallurgical testing, but the results of that work are not yet available. The results of ongoing mineral processing and metallurgical testing will be included in the forthcoming -preliminary feasibility report, expected to be filed in November 2011.



14. MINERAL RESOURCE ESTIMATE

The updated mineral resource estimate reported for the Ochoa Project as of September 1, 2011, was completed by Zachary J. Black, E.I.T., Gustavson Staff Geological Engineer, under the supervision of Donald E. Hulse, P.E., VP. The mineral resource was updated to include data from seven new core holes drilled during ICP's Phase 2B drilling program. This mineral resource estimate is compliant with NI 43-101 Standards of Disclosure for Mineral Projects and Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) Definition Standards.

14.1 Data Used for the Polyhalite Grade Estimation

Gustavson Associates created a 2-Dimensional (2D) grid model for estimating mineral resources at the Ochoa Project. Drill hole data, including collar coordinates, sample assay intervals, and composite geophysical logs, were provided by ICP as Microsoft Excel files and as Adobe PDFs. Gustavson updated the project database to include the additional 7 drill holes completed in 2011. The Ochoa Project drill hole database contains lithology, assay, polyhalite thickness, and petrophysical log data from a total of 20 diamond core holes drilled by ICP, as well as petrophysical log data (and interpreted polyhalite thicknesse) from 792 oil and gas wells drilled throughout the area of interest.

The assay and geological data from the 20 ICP drill holes were used to assess the accuracy of the petrophysical markers previously used to identify the top and bottom of the polyhalite seam. Verified petrophysical markers were then used to locate the top and bottom of the polyhalite seam in the 792 oil and gas bore holes.

ICP drill hole locations are arranged in an irregular grid pattern in order to maximize the collection of information with regard to the polyhalite seam within the property boundary. The drill holes are spaced approximately 10,000 feet apart, with a minimum distance of 4,170 ft and a maximum distance of 237,380 ft.

14.2 <u>Thickness Estimation Methodology</u>

14.2.1 *Data Preparation*

The ICP core holes were sampled on approximate 6-in. intervals. The thickness of the polyhalite seam in the core holes was determined based on assay data, and is represented by the longest



continuous set of sample intervals with grades of >10% polyhalite. Thickness values were determined by Upstream and verified by Gustavson.

14.2.2 Statistical Data

Gustavson statistically analyzed the thicknesses determined by Upstream. Special attention was paid to the thickness of the polyhalite seam because it represents the largest data set available for use in resource estimation. The thickness of the polyhalite seam dictates the volume of polyhalite within the property boundary. Histograms, probability plots, and cumulative frequency plots were generated in order to evaluate and describe the distribution of the polyhalite seam with regard to thickness. Table 14-1 below summarizes the relevant descriptive statistics.

 Table 14-1 Descriptive Statistics of Polyhalite Thickness (in feet)

Minimum	25 th Percentile	Median	75 th Percentile	Maximum	Variance	Mean
2.45	4.68	5.23	5.73	6.85	0.60	5.13

Gustavson determined that the distribution of the thickness data is Gaussian (normal). A probability plot comparing a theoretical Gaussian data set to the polyhalite thickness data set is presented as Figure 14-1.



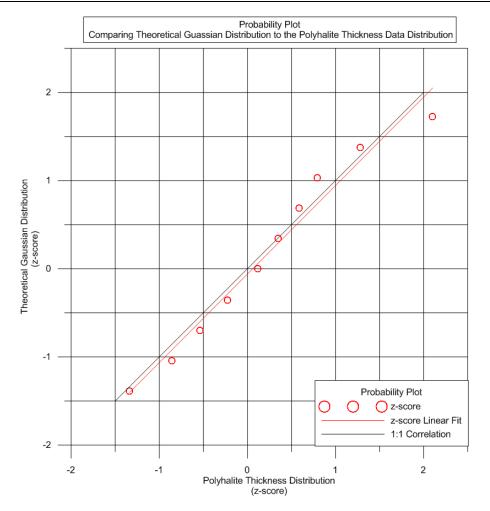


Figure 14-1 P-Plot of Thickness Data Showing Normality

The mean, median, and mode of a normal distribution are all approximately equal, and all are valid measures of the center of the data distribution (measure of central tendency). The mean (5.13 ft) value occurs most frequently, and has the highest probability of occurring.

14.2.3 Variography

Experimental variogram values were computed using the polyhalite thickness data. A spherical variogram was fit to the computed experimental variogram values. The spherical variogram is Gustavson's interpretation of the spatial variability of the polyhalite thickness data, and is used to filter noise resulting from imperfect measurements or lack of data. The nugget, sill, and range defined by the spherical variogram are used in the kriging algorithm during the modeling process. The spherical variogram applied by Gustavson is presented in Figure 14-2.



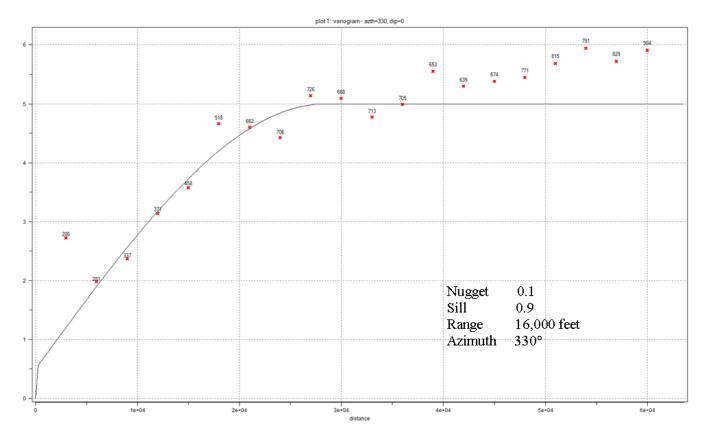


Figure 14-2 Spherical Variogram of Polyhalite Thickness with Normalized Variogram Model Parameters Shown

14.2.4 Sequential Gaussian Simulation

Gustavson used 2D Sequential Gaussian Simulation (SGS) to model the polyhalite thickness with Stanford Geostatistical Modeling Software (SGeMS). SGS is a proven, effective method of modeling normally distributed data. Data from all 812 drill holes were used in the simulation process. A 975,000-ft wide by 1,735,000-ft long grid with nodes on 100-ft centers was defined. SGS uses conditional probability distribution to provide possible values at unsampled locations within the grid. The values are conditional to available data, and are estimated using an ordinary kriging algorithm. The SGS software program builds a Gaussian distribution around the kriged value (the mean of the distribution) at a node on the grid with a variance that matches the kriged variance. The algorithm uses a random number generator to select a probability from the estimated distribution, and assigns the corresponding thickness value to the node. The program proceeds through the grid node by node, taking into account the previously assigned values at the other nodes. After all nodes have been assigned a value, the realization is complete. Fifty realizations



were generated by repeating the steps outlined above. Each of these realizations has an equal probability of predicting the actual values at the grid nodes.

14.2.5 Model Validation

The realizations were validated individually to ensure that the sample distribution (Table 14-2) and spatial variability were honored. For all 50 realizations, the median model (M-type), and the average model (E-type), were evaluated to confirm that the measured sample thicknesses were adequately represented in the models. Gustavson chose to report an M-type estimate because it represents the least absolute error and honors the sample distribution (Figure 14-3) and spatial variability. The M-type model represents the median value of all 50 realizations at each point (Figure 14-4). Gustavson reblocked the 100-ft grid centers to a 500-ft grid to correct for volume variance.

Descriptive Statistics Comparison								
Dataset Minimum 25 th Percentile Median 75 th Percentile Maximum Variance Me								
Sample	2.45	4.68	5.23	5.73	6.85	0.60	5.13	
Realization 1	0.1	4.69	5.27	5.75	6.85	0.60	5.15	
Realization 11	0.1	4.68	5.23	5.69	6.85	0.60	5.12	
Realization 21	0.1	4.66	5.24	5.76	6.85	0.65	5.13	
Realization 31	0.1	4.68	5.22	5.67	6.85	0.58	5.11	
Realization 41	0.1	4.68	5.24	5.71	6.85	0.61	5.13	
M-type (100x100)	0.1	4.49	4.96	5.35	6.85	0.47	4.88	
M-type (500x500)	0.1	3.92	4.82	5.29	6.33	2.64	4.22	

 Table 14-2 Descriptive Statistics Comparison of Polyhalite Thickness (in feet)



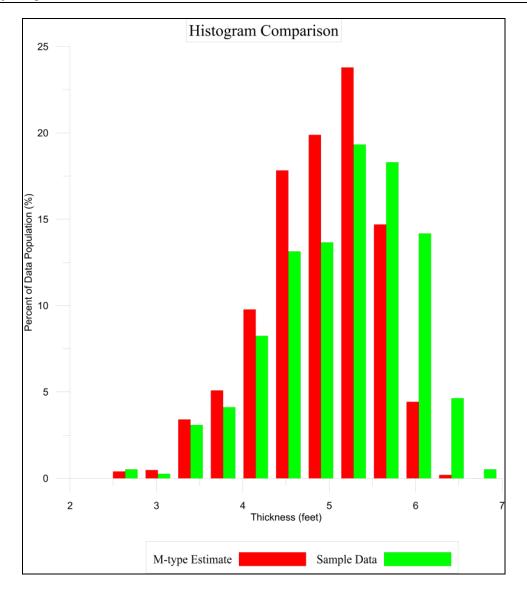


Figure 14-3 Results of M-Type Estimate vs. Sample Data



Intercontinental Potash Corporation Ochoa Project Updated Mineral Resource Estimate

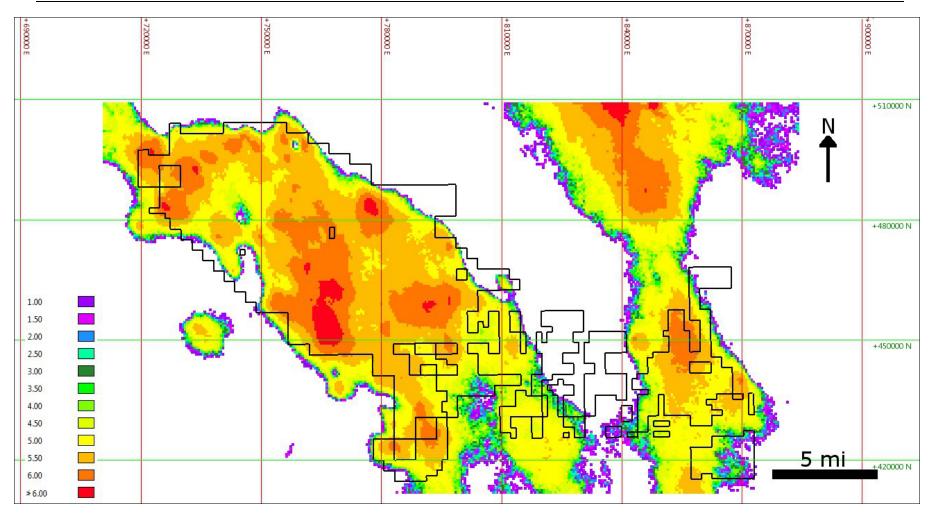


Figure 14-4 Contour Map of the PolyhaliteThickness



14.3 <u>Mineral Grade Estimation</u>

14.3.1 Data Estimated

Grade was estimated for three zone classifications: above the polyhalite seam, within the polyhalite seam, and below the polyhalite seam. The geologic units above and below the polyhalite seam are anhydrite-dominated, though they may contain some percentage of polyhalite. Thickness of the anhydrite-dominated zones is represented by the thickness of sample intervals in core assay tables above and below the identified polyhalite seam. The spatial distribution of the anhydrite-dominated zones with regard to thickness was modeled using the same methods as were used for the polyhalite seam, and also with 50 simulations. The geologic character and general distribution of both anhydrite-dominated zones are assumed to be similar to those of the polyhalite seam.

14.3.2 Statistical Data

Within each of the three zones, Gustavson estimated the grade (percent weight) of polyhalite, anhydrite, halite, and magnesite. The descriptive statistics associated with each zone are summarized in Table 14-3.

Above Polyhalite Seam								
Mineral	Minimum	25 th Percentile	Median	75 th Percentile	Maximum	Variance	Mean	
Polyhalite	0	0	0.4	0.8	9.2	4.3	1.1	
Anhydrite	72.4	81.1	86.8	88.7	96.6	37.3	85.4	
Halite	0	2.5	3.7	7.3	17.9	20.0	5.8	
Magnesite	2.3	5.7	6.6	7.9	12.6	6.6	7.1	
		With	nin Polyhali	te Seam				
Mineral	Minimum	25 th Percentile	Median	75 th Percentile	Maximum	Variance	Mean	
Polyhalite	70.9	77.5	80.8	81.6	89.8	24.5	80.4	
Anhydrite	1.7	3.9	5.4	9.2	14.5	13.7	6.8	
Halite	0.8	1.7	3.1	4.5	6.8	3.1	3.5	
Magnesite	4.1	7.1	8.5	10.0	12.6	5.7	8.7	
		Belo	ow Polyhali	te Seam				
Mineral	Minimum	25 th Percentile	Median	75 th Percentile	Maximum	Variance	Mean	
Polyhalite	0	0.7	1.2	2.1	4.0	1.1	1.5	
Anhydrite	57.0	72.2	77.7	80.4	87.3	52.5	76.6	
Halite	0	2.2	2.9	5.0	8.6	5.3	3.8	
Magnesite	0	9.9	16.0	19.0	24.1	37.0	15.3	

Table 14-3 Distribution of Average Grade for ICP Core Holes



Each of the datasets presented above appears to be normally distributed, though it is difficult to be certain that the datasets are truly normal with only 20 samples (core hole composite intercepts). Gustavson analyzed the grade data in relation to unit thickness using selected thickness cut-off values, and found little variation in grade with change in thickness. For each selected thickness cut-off, polyhalite grade is assumed consistent throughout the polyhalite seam.

14.3.3 Sequential Guassian Simulation and Validation

SGS was used to estimate the grade of polyhalite, anhydrite, halite, magnesite, and the remaining minerals within each of the three seams based on the previously defined 975,000-ft wide by 1,735,000-ft long grid with nodes on 500-ft centers. Fifty realizations were generated for each grade estimation.

14.3.4 <u>Model Validation</u>

For each realization, model values were checked against known sample values in close proximity in order to confirm that the predicted (model) values are reasonable. Gustavson chose to use an E-type estimate for reporting, which utilizes the average grade of the 50 realizations to effectively smooth the normal distribution of values and more reasonably represent the likely distribution of grade throughout the deposit (Figure 14-5).



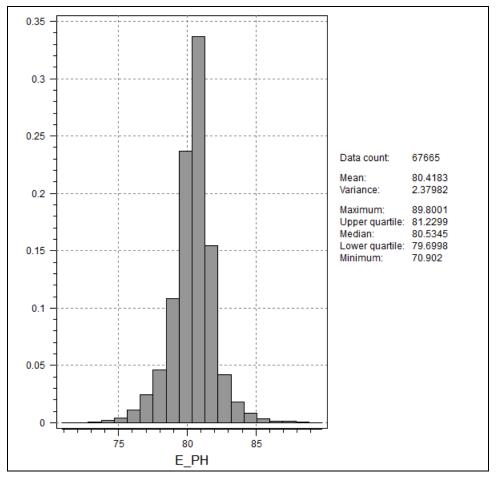


Figure 14-5 Distribution of Average Grade for ICP Core Holes

14.4 <u>Resource Classification</u>

Gustavson classified the mineral resources as measured, indicated, and inferred. The classification of resources is based on the unsampled distance from an ICP sample point. Measured resources occur within 0.75 mile of an ICP sample location; indicted resources occur between a distance of 0.75 and 1.5 miles from an ICP sample point; and resources that occur beyond the 1.5-mile radius but within the property boundaries or within a 3.0 mile radius, whichever is shorter, of an ICP sample point are classified as inferred. Gustavson believes that this method of resource classification is reasonable and appropriate with specific regard to the Ochoa Project.



14.5 <u>Mineral Resource Tabulation</u>

The Ochoa Project mineral resource estimate is summarized in Table 14-4. The mineral resource estimate includes all drill data obtained as of September 1, 2011, and was independently verified by Gustavson. Table 14-4 below is the mineral resource contained within the ICP leases displayed in Figure 14-4.

Conditional Simulation Median Model							
4 ft Minimum Thickness	Measured	Indicated	Measured plus Indicated	Inferred			
Average Thickness (ft)	5.45	5.30	5.37	5.05			
Tons (million)	422	562	984	440			
Grade Polyhalite	80.2%	79.9%	80.0%	80.6%			
Eq Grade K ₂ SO ₄	22.7%	22.6%	22.7%	22.8%			
5 ft Minimum Thickness	Measured	Indicated	Measured plus Indicated	Inferred			
Average Thickness (ft)	5.52	5.46	5.49	5.35			
Tons (million)	390	448	838	269			
Grade Polyhalite	80%	80.2%	80.3%	80.7%			
Eq Grade K ₂ SO ₄	22.8%	22.7%	22.8%	22.9%			
6 ft Minimum Thickness	Measured	Indicated	Measured plus Indicated	Inferred			
Average Thickness (ft)	6.10	60.06	6.09	6.03			
Tons (million)	42	21	63	.8			
Grade Polyhalite	84.5%	84.4%	84.5%	84.2%			
Eq Grade K ₂ SO ₄	24.0%	23.9%	23.9%	23.9%			

Table 14-4 Mineral Resource Estimate



15. ADJACENT PROPERTIES

At present, other than oil and gas development and local caliche mining, there are no active mines in the immediate Ochoa area, and Gustavson knows of no publicly available reports on polyhalite occurrences immediately adjacent to the Ochoa Project area. Adjacent properties have no know existing, potential, or reasonable future material impact on the Ochoa Project.



16. OTHER RELEVANT DATA AND INFORMATION

Gustavson believes that the results of exploration, drilling, and analyses completed as of September 2011 are sufficient to support preparation of a preliminary feasibility study. This effort is currently underway, and the associated NI 43-101 Technical Report is expected to be issued in the fourth quarter of 2011.



17. INTERPRETATIONS AND CONCLUSIONS

ICP controls a large land package that hosts a substantial polyhalite resource. The polyhalite occurs at depths of 975 to 1,600 ft within the project area, and is considered to be minable using conventional Room and Pillar mining methods with continuous miners and other underground mining equipment. ICP has drilled 20 core holes into the Ochoa polyhalite bed, and the mineral resource estimate is based on data from these and 789 previously drilled rotary holes. The measured plus indicated mineral resource is estimated at 838.2 million tons grading 80.3% polyhalite, at a 5-ft minimum thickness. Gustavson believes that results of this study warrant continued efforts to advance the Ochoa Project, and that the data and information presented herein are sufficient to support completion of the preliminary feasibility study.



18. <u>RECOMMENDATIONS</u>

Gustavson recommends that ICP complete a preliminary feasibility study of the Ochoa Project, and that bench scale and lock cycle metallurgical testing programs be carried out. The company should continue ongoing baseline environmental programs in order to facilitate the permitting/NEPA process. Dependent upon positive outcome of the preliminary feasibility study, Gustavson also recommends an additional drilling program at an appropriate spacing to convert the current indicated mineral resource to additional measured resource and define mineral reserves for early years of production. Geotechnical information should be collected during the drilling program to support engineering design of ramps, shafts, and underground facilities. A geotechnical soils investigation will be required for appropriate foundation design, and an aerial survey should be completed to support feasibility design and engineering.

Specific recommendations include the following:

- Complete the preliminary feasibility study
- Continue bench scale and locked cycle metallurgical testing followed by a pilot scale test run on bulk sample drill core
- Continue permitting and baseline environmental data collection efforts
- Continue hydrologic studies and conduct pump test to determine water source, quality, and method of delivery to the plant
- Proceed with a bulk sample drill program in order provide sample for metallurgical test work, define mineral resources within the mine area, and provide sample for geotechnical testing
- Conduct geotechnical testing program with regard to construction materials
- Complete an aerial survey of the project site

The costs associated with Gustavson's recommendations break out as follows:



Phase 3 Exploration Program and Project Development

Phase 3A Preliminary feasibility study In-progress \$committed

Provided outcome of PFS is positive.

Phase 3B	Feasibility study Metallurgical testing	\$10,000,000 \$1,500,000
	Aerial Survey	\$200,000
	Geotechnical / Soil test	\$500,000
	Hydrological Test Environmental Permitting	\$3,500,000 <u>\$1,000,000</u>
	Subtotal	\$16,500,000
Phase 3c	Definition drilling	<u>\$4,000,000</u>
	Total	\$20,700,000



19. <u>REFERENCES</u>

- Beauheim, R. L., and Holt, R.M., 1990, Hydrogeology of the WIPP site; in Powers, D. Holt, R., Beauheim, R. L., and Rempe, N. (eds.), Geological and hydrological studies of evaporites in the northern Delaware Basin for the Waste Isolation Pilot Plant (WIPP), New Mexico: Geological Society of America (available from Dallas Geological Society), Field Trip #14 Guidebook, pp. 131–179.
- Borns, D.J., and Shaffer, S., 1985, Regional well-log correlation in the New Mexico portion of the Delaware Basin, Sandia National Laboratories, SAND83-1798, 73pp.
- Conley, J. E., Partridge, E. P., 1944, Potash Salts from Texas-New Mexico Polyhalite Deposits, Commercial Possibilities, Proposed Technology, and Pertinent Salt-Solution Equilibria, United States Department of the Interior, Bureau of Mines, Bulletin 459.
- Gustavson Associates LLC, 2009, NI 43-101 Technical Report on the Polyhalite Resources and Preliminary Economic Assessment of the Ochoa Project in Lea County, Southeast New Mexico, issued by International Potash Corp., August 19, 2009.
- Jones, C. L., 1972, Permian Basin Potash Deposits, South-Western United States, in Geology of Saline Deposits, Proceedings of Hanover Symposium, 1968, Unesco, Paris.
- Powers, D.W., and Holt, R.M., 1999, The Los Medaños Member of the Permian (Ochoan) Rustler Formation, New Mexico Geology, November, 1999.
- Powers, D.W., Holt, R.M., Beauheim, R.L., Richardson, R.G., 2006, Advances in Depositional Models of the Permian Rustler Formation, Southeastern New Mexico, New Mexico Geological Society Guidebook, 57th Field Conference, Caves and Karst of Southeastern New Mexico, pp. 267-276.
- Ward, R.F., St. C. Kendall, C.G, and Harris, P. M., 1988, Upper Permian (Guadalupian) Facies and Their Association with Hydrocarbons – Permian Basin, West Texas and new Mexico, Amer. Assoc. Petrol. Geologists, V. 70, no. 3, p. 239-262.
- Wroth, J.S., 1930, Commercial Possibilities of the Texas-New Mexico Potash Deposits. USBM Bulletin 316. 144 p.

