



## **CONTACT INFORMATION**

Mining Records Curator  
Arizona Geological Survey  
1520 West Adams St.  
Phoenix, AZ 85007  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

## **ACCESS STATEMENT**

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

## **CONSTRAINTS STATEMENT**

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

## **QUALITY STATEMENT**

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

PRINTED: 06/20/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: RUDY GYPSUM

ALTERNATE NAMES:  
T & R GYPSUM

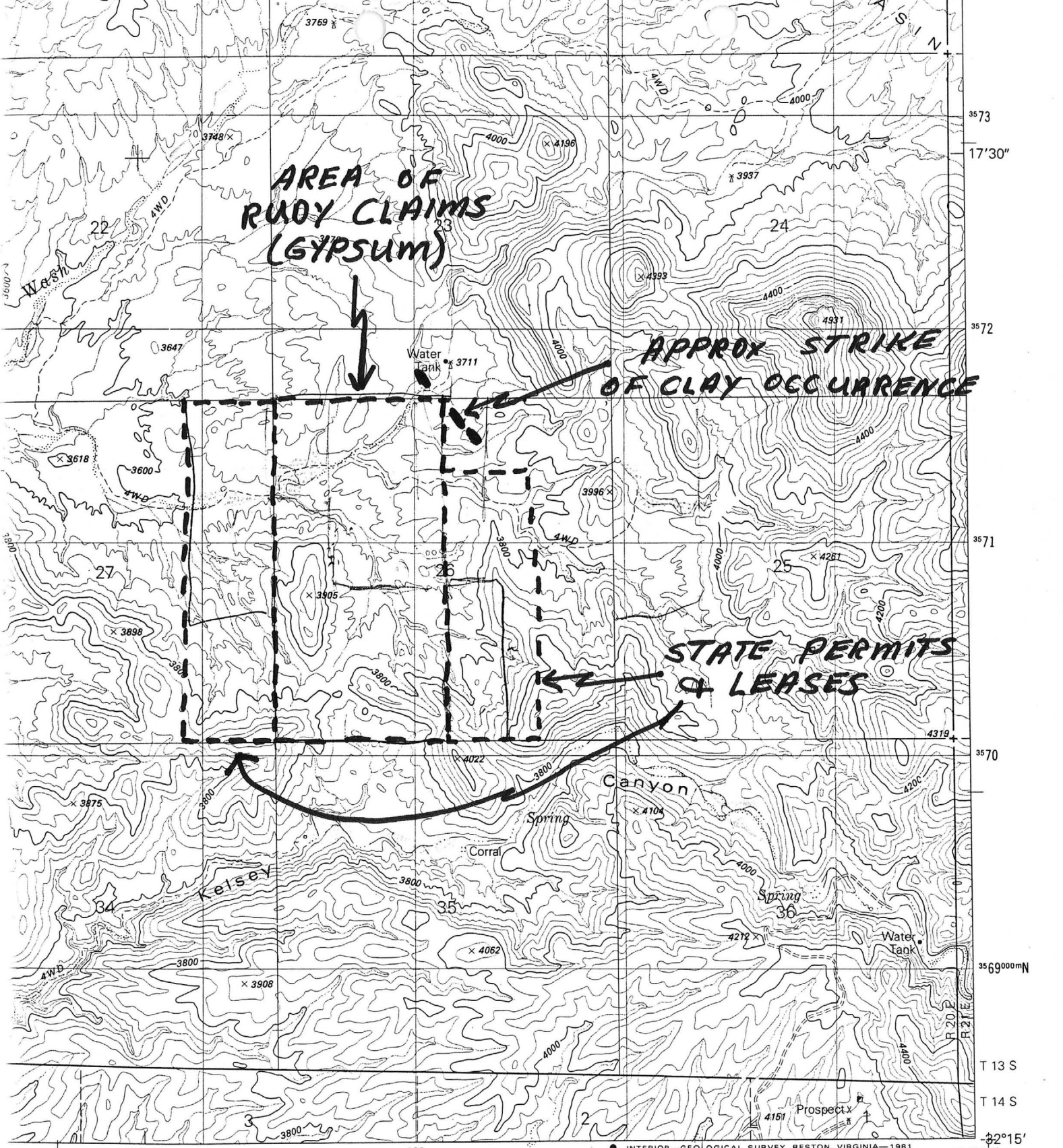
COCHISE COUNTY MILS NUMBER: 915

LOCATION: TOWNSHIP 13 S RANGE 20 E SECTION 26 QUARTER W2  
LATITUDE: N 32DEG 16MIN 24SEC LONGITUDE: W 110DEG 16MIN 50SEC  
TOPO MAP NAME: SOZA MESA - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:  
GYPSUM ALABASTER  
CLAY KAOLIN

BIBLIOGRAPHY:  
ADMMR RUDY GYPSUM FILE

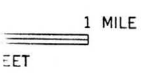


**AREA OF RUDY CLAIMS (GYPSUM)**

**APPROX STRIKE OF CLAY OCCURENCE**

**STATE PERMITS & LEASES**

**SEC. 26, T.13S, R.20E.  
RUDY GYPSUM  
COCHISE COUNTY, AZ**



QUADRANGLE LOCATION

From

ROAD CLASSIFICATION

Primary highway, hard surface	Light-duty road, hard or improved surface
Secondary highway, hard surface	Unimproved road
Interstate Route	U. S. Route
	State Route

**SOZA MESA, ARIZ.**  
SE/4 REDINGTON 15' QUADRANGLE

(DRAGON 1:62,500 3948 II)

EXHIBIT "A"

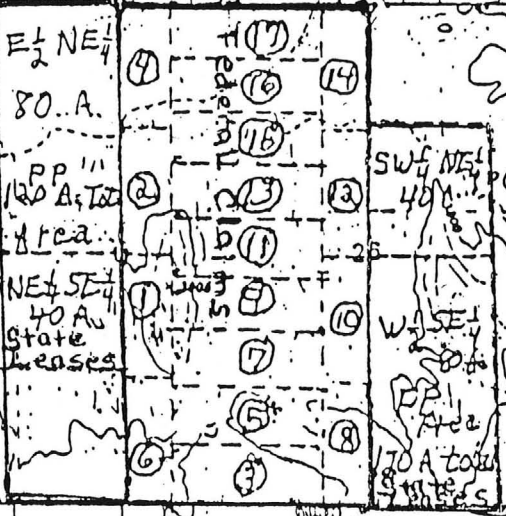
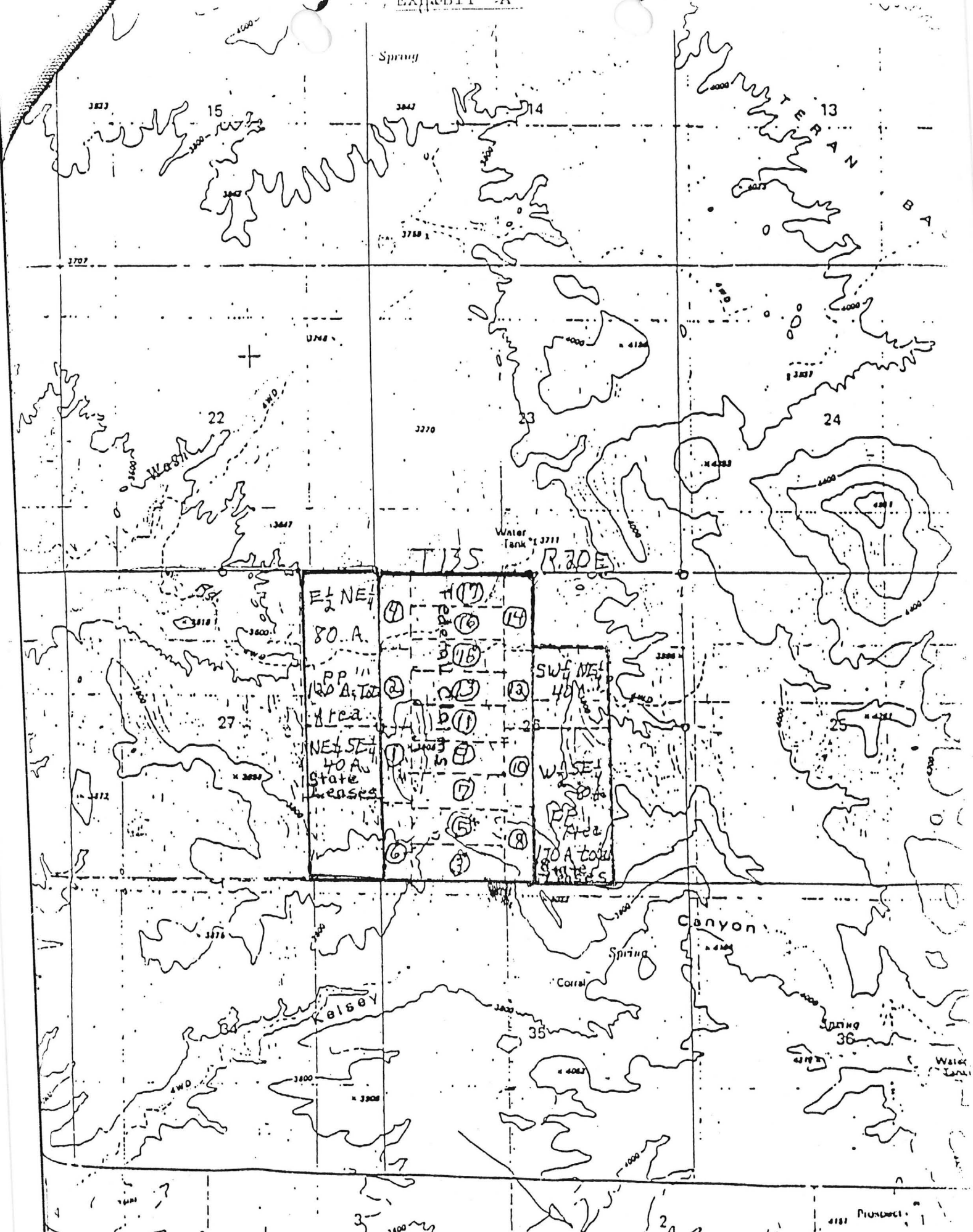
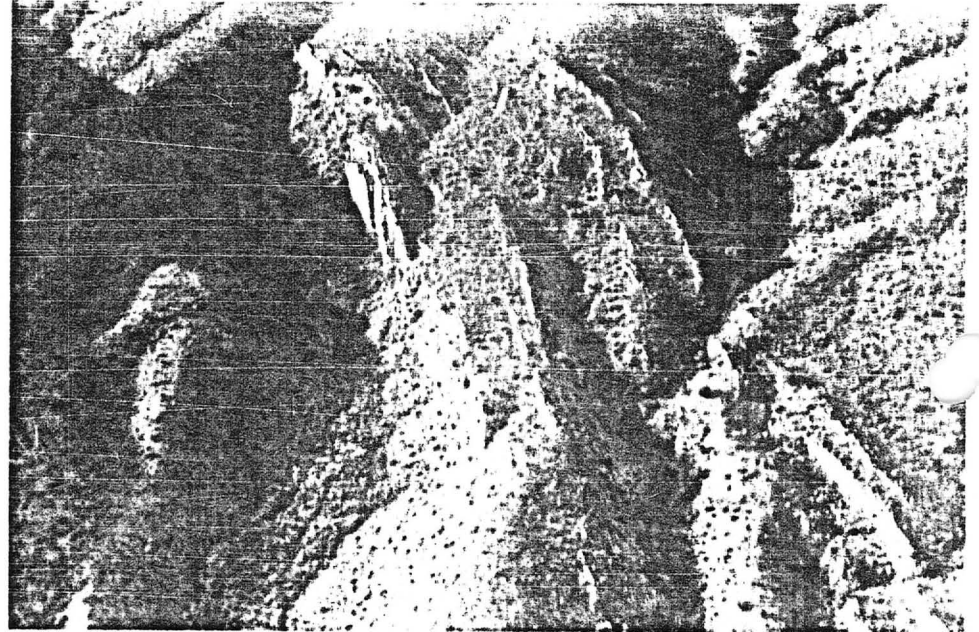
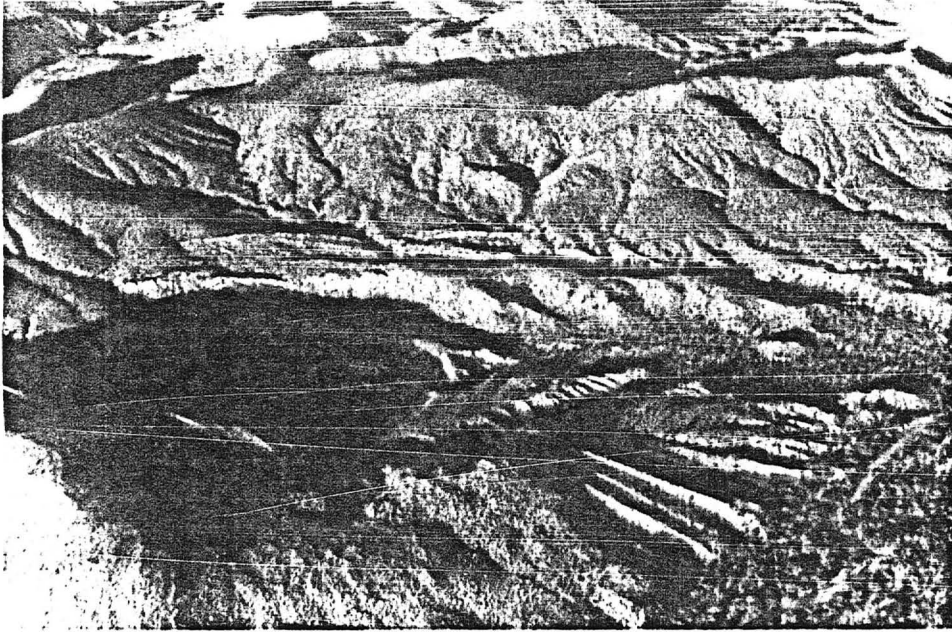




EXHIBIT "B"



Aerial Photos of T&R Site

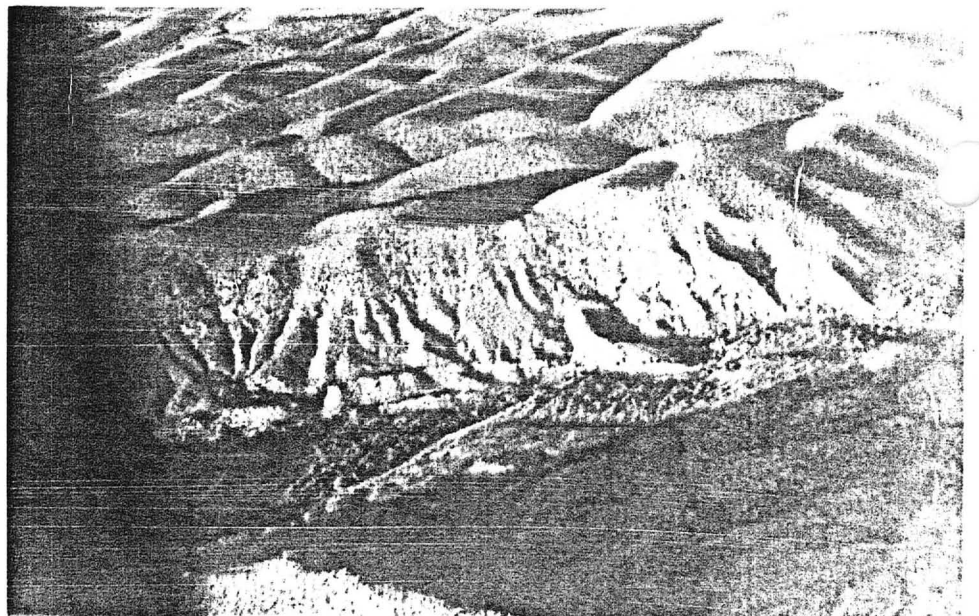
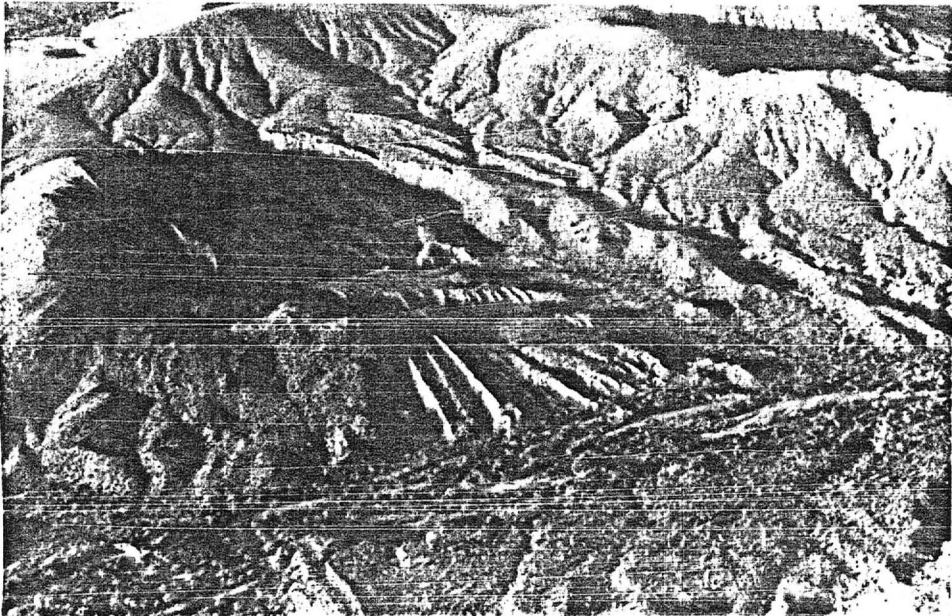
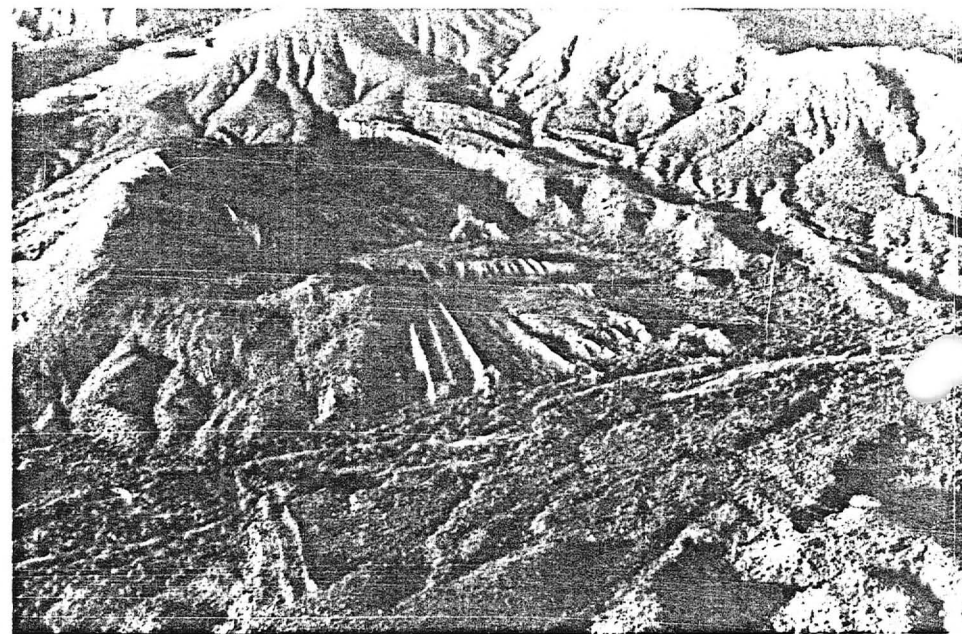
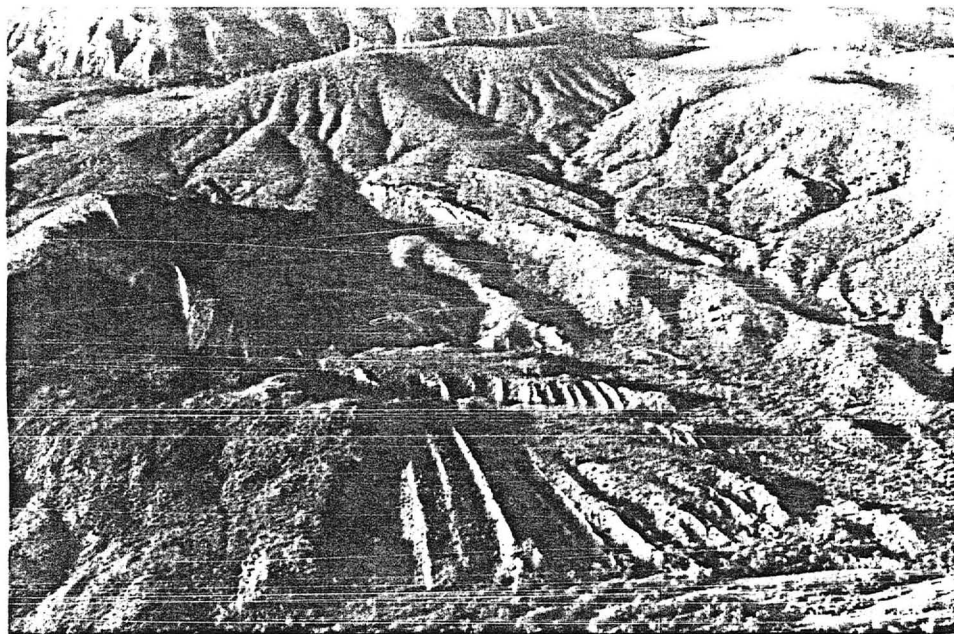
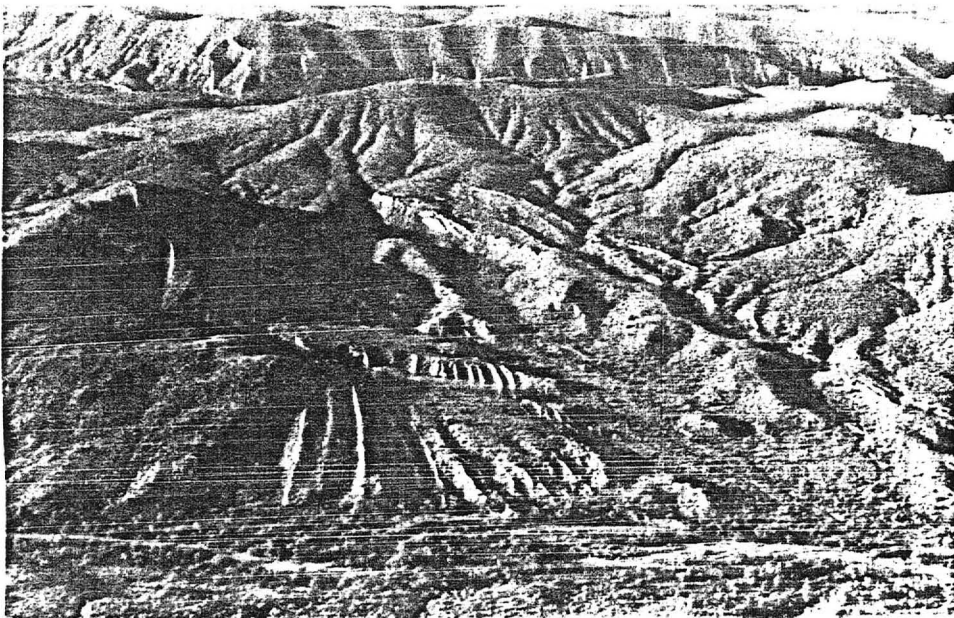


EXHIBIT "B"



Aerial Photos of T&R Site



## ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

**VERBAL INFORMATION SUMMARY**

1. Information from: **Steve Maher**  
Address: **1217 Eleventh Ave.**  
**Safford, Arizona 85546**
2. Phone: **428-0446**
3. Mine: **Rudy Gypsum**  
**aka T & R Gypsum**
4. ADMMR Mine File: **Rudy Gypsum**
5. County: **Cochise**
6. MILS Number: **To be assigned**
7. District: (mining) or (mineral)
8. Township: **T 13 S** Range: **R 20 W** Sec(s): **W $\frac{1}{2}$ , Sec. 26**  
**and E $\frac{1}{2}$ , E $\frac{1}{2}$ , Sec. 27**
9. USGS Topographic Map: **Soza Mesa 7.5'**
10. Location (descriptive):
11. Number of Claims - Patented **None**  
Unpatented **17 + State Prospecting Permits**
12. Owner(s): (if different from above)
13. Address:  
**T & R Gypsum**  
**P.O. Box 1450**  
**Safford, Arizona 85548**  
**Phone 428-9439**
14. Operating Company: **T & R Gypsum**
15. Pertinent People and/or Firm: **Steve Maher and Rudy Hornelaz**
16. Commodities: **Gypsum - Selenite and Gem - Alabaster**
17. Operational Status: **Explored deposit**
18. Summary of information received, comments, etc.:

Mr. Maher brought in a report and some sample results on his and Rudy Hornelaz' gypsum deposit south east of Reddington. They have evaluated the deposit for both agricultural gypsum and as a cement ingredient. They hope to be in production shipping to farmers in Cochise County and the Gila Valley near Safford by late November. Improving roads across State Trust Lands to the west for access from the Reddington Road is a major problem. A significant amount of gypsum is exposed and initial mining was reported to be simple.

Samples have been evaluated by Arizona Portland Cement at Rillito and are likely usable in the manufacture of cement. Alabaster of art carving grade was also reported.

Date: July 3, 1990

Ken A. Phillips 



# T & R GYPSUM

---

Post Office Box 1450

/ Safford, Arizona 85548

## 1. Introduction

The following summary describes the healthy state of the gypsum markets both in the U.S. and the world and is an introduction to an opportunity presented by T & R Gypsum, an Arizona general partnership ("T & R"). T & R is a gypsum mining entity which has recorded certain mining claims which, in our estimation, contain the finest gypsum deposits in the State of Arizona and perhaps in the southwestern United States. This summary is being presented to you to determine your interest in entering into negotiations to purchase T & R's rights to the above-mentioned mining claims. Please note that unless otherwise indicated, the statistical information set forth herein regarding gypsum matters was obtained from Gypsum, by Lawrence L. Davis, which is a chapter from the United States Department of the Interior Minerals Yearbook, 1985.

## 2. The demand for gypsum

The demand for gypsum continues to be among the strongest and the healthiest of all building minerals today, both nationally and internationally. The pent up demand in road, commercial and residential real estate construction has spurred an increased demand for the many products of which gypsum is the primary ingredient.

Specific statistics which reflect this strong demand include the following. In 1985, a record 19.5 billion square feet of gypsum wallboard was shipped in the U.S. Sales of gypsum products increased slightly from 1984 to 25 million short tons valued at \$2.4 billion. The total value of gypsum exports was approximately \$26 million. This strong demand should continue in the near future and increase over the mid and long term.

### 3. Sources of gypsum

Although the United States is the world's leading producer of gypsum, imports of the mineral have continued to increase during the past 5 years and currently account for more than 10 million tons of domestic gypsum consumption annually. In 1985, imports provided 33% of the crude gypsum consumed in the U.S. As in other industries, the ability to invest in mining and manufacturing facilities to produce gypsum presents an excellent opportunity in terms of domestic sales and in exporting gypsum products at an attractive rate of foreign exchange.

### 4. Costs and related factors

The value of mined crude gypsum is approximately \$10 per ton. Calcined gypsum's value increases to around \$25 per ton. Alabaster gypsum can be sold for over \$35 per ton because of its purity.

The cost of both domestic and imported gypsum has climbed steadily over the past 5 years. This has been due to gypsum's limited availability coupled with a high demand. The continued domestic and worldwide expansion in population and economic growth appears to be continuing and therefore, the need for gypsum products will continue to increase.

The cost of crude gypsum will increase at an even faster rate than that currently experienced if the international value of the U.S. dollar does not rebound, the demand for the mineral increases or if the rate of inflation increases. The probability of the occurrence of at least one, if not all, of these economic conditions must be considered to be more likely than not.

Assuming that the price of crude gypsum will continue to increase markedly, the ownership and control of a significant reserve of very high quality gypsum would assure its owner of a consistent and controllable product cost and quality in an environment which will probably include consistently increasing prices for gypsum products. The result of such a scenario would be a predictably increasing profit margin. The opportunity to control cost of product is one that must be seriously considered in the context of today's economic conditions.

## 5. Uses and production (1985 Statistics)

Most gypsum (approximately 75%) is calcined, which greatly increases its value. Of the uncalcined gypsum, 76% was used for portland cement and 21% for agricultural products. Of the total calcined gypsum, 96% was used for prefabricated products and 4% for industrial and building plasters. Breaking down the prefabricated products, based upon surface square feet, 67% was regular wallboard; 22% was fire resistant type X wallboard; 3% was 5/16-inch mobile home board; 5% was lath, veneer base, sheathing and predecorated wallboard; and 3% was miscellaneous board including water and /or moisture-resistant board. From this statistical analysis it appears that gypsum is most valuable in regions demonstrating growth and therefore have a greater need for real estate construction materials.

## 6. Gypsum production in Arizona compared to other regions

Of particular noteworthiness is the lack of gypsum production in the State of Arizona. Arizona is one of the fastest growing states in the U.S. and a number of census projections indicate that its population growth will continue for at least the next forty years. In fact, some projections indicate that the greater metropolitan population of Tucson alone will surpass 2 million by 2025. Yet, most of the gypsum products used in Arizona must be shipped in from other states.

Specifically, the leading gypsum producing states in 1985 were, in descending order, Texas, Michigan, Iowa, Oklahoma, California and Nevada. Each of these six states produced more than 1 million tons and together accounted for more than 65% of total domestic production. There is certainly a vacuum of local production in Arizona where, in 1984, only four active mines were in production. The total production of those mines was 261,000 short tons.

During the years 1985 - 1987, a number of gypsum mines and production facilities were opened in various regions of the U.S. A plant in New Jersey was scheduled to open in 1986 for the production wallboard manufacturing using imported crude gypsum, according to information set forth in Rock Products, V. 89, No. 1, Jan. 1986, p. 36. This plant was expected to manufacture 250,000 tons of crude gypsum per year.

## 7. T & R's mining claims

T & R is prepared to commence negotiations to sell and assign its rights to mine the various tracts subject to its mining claims (the "Site") immediately. The price and terms shall be determined by such negotiations. However, the initial offering price will be \$4.5 million. Negotiations with several major gypsum companies have recently been commenced at such offering price. In order to fully realize the potential of the Site, please consider the following facts.

The Site consists of approximately 600 acres of desert-mountain land which is extremely rich in gypsum (a portion of which is alabaster gypsum). T & R expects the Site to yield over 10 millions of tons of gypsum. It is of significant importance to note that more than 1 million tons of the gypsum located on the Site lies loosely above ground and therefore can be collected without digging. A map of the Site is attached to this brochure as Exhibit "A".

One of the outstanding features of the Site which sets it apart from other gypsum reserves includes its significant reserve of alabaster gypsum (which is extremely rich in quality and purity), and the relative ease with which all of the gypsum can be mined. The gypsum located on the Site is extremely pure and needs almost no separation from other unwanted minerals and clays. This attribute will greatly reduce the cost of calcining the gypsum and/or preparing it for other uses. T & R has retained an aerial photographer to photograph the Site. These photographs, one of which is included with this brochure in Exhibit "B", will enable you to see and appreciate the richness of the gypsum deposits and to note that the terrain of the Site would be relatively easy to mine.

## 8. Independent analysis

In order to verify the significantly high purity of the gypsum, T & R recently retained the assay firm of Rochay Assay Office, Inc. ("RAO") to analyze and test a sampling of the minerals located upon the Site. RAO is among the most respected assay companies in the southwestern U.S. and has been retained for similar testing by most of the leading mining companies in Arizona. RAO is not connected to T & R in any manner whatsoever.

The samples, which were independently collected and tested by RAO's manager, Mr. Carlos Rochin, proved to consist of 99.3% pure useable gypsum. The quality and purity of the gypsum was so high that Mr. Rochin commented that the gypsum contained on the Site was the most remarkable he had ever tested in terms of quality and purity. A copy of Mr. Rochin's assay report is set forth in Exhibit "C".

The mining claims are located on both federal and state lands. The portion upon the federal (non-forest) lands are subject to the Mining Act of 1872 (the "Act"), which is the most liberal of the various federal mining acts. The primary advantage of being subject to the Act is the absence of reclamation requirements. Reclamation rules require that an entity mining a site must restore the condition of the site following completion of the mining, which adds considerable cost to the mining function.

In addition, the State of Arizona does not impose any reclamation requirements on its land, since mining is such an important component of its economy. Therefore, as long as the gypsum is removed from the Site in a manner which causes no more injury to the land than is reasonably necessary, there should not be any clean up concerns.

The Site is strategically located near Tucson, Arizona, which is an air distance of less than 30 miles. With the development of new roads over the next few years, this will result in a travel time of only 20 minutes by truck. The location offers access to a wide range of transportation options. Furthermore, even without the new roads, the Site is only 38 miles away from a major rail site. From that point, the gypsum could be hauled to its final destination.

There are a few other favorable factors which are worth noting as follows:

1. The Site is a mere 4.5 miles from an existing county road, thereby facilitating the movement of the gypsum to its final destination.
2. Access to electricity is available at a location just over 4 miles from the Site.
3. Water is available from a major river located a mere 4.4 miles from the Site.

4. A network of roads connecting to Site to the county roads are in place.
5. At a rate of 200,000 tons per year, there is a 5 year supply of gypsum available above ground thereby greatly reducing the cost of mining during that initial time period.

These additional factors are important because the the availability of easy access to transportation, electricity and water, in addition to the quantity of gypsum above ground, will serve to reduce the costs of operation. Finally, the desert-mountain terrain enables mining by using a scraping method. This method is less expensive, cleaner and safer than most other methods of mining.

#### 9. T & R's proposal

T & R intends to sell its entire interest in the claims upon the Site. The initial offering price will be \$4.5 million. The terms include a down payment of \$1.5 million, the remainder payable in sixty equal monthly installments of principal and interest (at an annual rate of 10%), commencing one month following the closing date of the transaction.

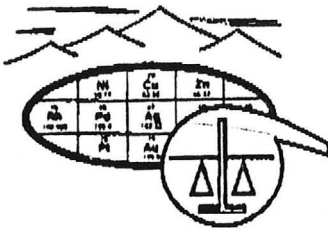
#### 10. Disclosure

Please note that this brochure is not a Registered nor a non-Registered offering. This brochure has been prepared as an introduction to an opportunity made available by T & R. Any information contained in this brochure regarding the Site should be researched by a prospective purchaser as T & R shall only warrant and represent their good title to the mining claims. This brochure is intended to invite an offer to purchase, but is not an offer to sell. T & R may withdraw this opportunity at any time.









**SKYLINE LABS, INC.**

1775 W. Sahuaro Dr. • P.O. Box 50106  
Tucson, Arizona 85703  
(602) 622-4836

428 9139

**REPORT OF ANALYSIS**

**JOB NO. UXX 097**

**June 20, 1990**

**LAB NO 15130 1,2,3, RED CLAY**

**PAGE 1 OF 1**

**TURNER LABORATORIES**  
Attn: Mr. T. Graf  
1881 W. Prince Rd.  
Tucson, AZ 85705

**Preliminary Analysis of 4 Samples**

ITEM	SAMPLE NO.	CaO (%)	CO2 (%)	SO3 (%)	K2O (%)
1	#1 (9 on other)	31.1	1.3	44.3	<.01
2	#2 (5 on other sheet)	29.3	1.5	39.0	.18
3	#3 (T & R)	29.9	1.5	42.8	.13

ITEM	SAMPLE NUMBER	Na2O (%)	MgO (%)	Fe (%)	Al (%)
1	#1	.12	.22		92.22 Gr
2	#2	.26	.44		87.52
3	#3	.23	.31		92.22
4	RED CLAY			3.4	7.

\*NOTE: Cl results are pending.

*[Handwritten Signature]*  
William L. Lehbeck  
Manager  
6/20/90



Special Gypsum Samples  
April 19-90

J. Boyett

ATTN: STEVE MATTER  
1217 11th Ave  
SAFFORD, AZ 85546  
PHONE 428-0446

Work Required: Wet      Basis: Loss Free      As Received      Chemical       
A#      Date Sampled      Sample required      Pounds  
SP Test #      Time      by       
Sample collected      Pounds by     

ANALYSIS	# 2	# 5	# 7	# 8	# 9	# 10	# 11
SiO <sub>2</sub>							
Al <sub>2</sub> O <sub>3</sub>							
Fe <sub>2</sub> O <sub>3</sub>							
CaO							
MgO							
Na <sub>2</sub> O							
K <sub>2</sub> O							
<del>SO<sub>3</sub></del> % Purzumi	59.9	87.8	95.5	89.3	98.3	77.8	78.
C <sub>3</sub> S							
C <sub>2</sub> S							
C <sub>3</sub> A							
C <sub>4</sub> AF							
S/R							
S/A							
LOSS							
INSOL.	* 10.96	3.84	1.92	* 7.76	2.40	* 14.76	6.40
CaCO <sub>3</sub>							
MgCO <sub>3</sub>							
BLAINE							
TOTAL							

REMARKS \* not acceptable

DATE: 4/19/90 ANALYSIS BY: K. Robbins  
D. KRIBG

SPECIAL Gypsum Samples from  
3/6/90

Steve Mawer  
1217 11th Ave  
Safford, AZ 85546  
Phone 428-0446

Work Required: Wet  Basis: Loss Free  As Received  Chemical   
 A# \_\_\_\_\_ Date Sampled \_\_\_\_\_ Sample required \_\_\_\_\_ Pounds  
 SP Test # \_\_\_\_\_ Time \_\_\_\_\_ by \_\_\_\_\_  
 Sample collected \_\_\_\_\_ Pounds by \_\_\_\_\_

ANALYSIS	T&R GYP	LARGE CHUNK GYP ROCK
SiO <sub>2</sub>		
Al <sub>2</sub> O <sub>3</sub>		
Fe <sub>2</sub> O <sub>3</sub>		
CaO		
MgO		
Na <sub>2</sub> O		
K <sub>2</sub> O		
<del>SO<sub>3</sub></del> % Purity	89.8	86.1
C <sub>3</sub> S		
C <sub>2</sub> S		
C <sub>3</sub> A		
C <sub>4</sub> AF		
S/R		
S/A		
LOSS		
INSOL. (Wet)	5.92	3.08
CaCO <sub>3</sub>		
MgCO <sub>3</sub>		
BLAINE		
TOTAL		

Your next  
contact would  
be Tom Synard  
in our Cotton  
office  
714 825 4260  
EXT 368

JFB

REMARKS: This can be used in the Portland Cement process JFB  
 DATE: 3/6/90 ANALYSIS BY: K. Robbins

GYPSUM CHEMICAL ANALYSES

CaO	31.10	
CO2	1.30	SAMPLE #1
SO3	44.30	
K2O	0.01	
Na2O	0.12	
MgO	0.22	
Total	77.05	

Theoretical calculations

	Elemental Weight	Molecular Equivalent	CaSO4	Na2CO3	MgCO3
Ca <sup>+2</sup>	22.2	0.555	95.6		
K <sup>+</sup>	0.0	0.000			
Na <sup>+</sup>	0.0	0.002		0.01	
Mg <sup>+</sup>	0.1	0.005			0.02
Tot eq wt		0.563			
CO3 <sup>-2</sup>	1.8	0.030		0.05	0.04
SO4 <sup>-2</sup>	53.2	0.554	95.3		
Tot eq wt		0.583			

CaO	29.30	
CO2	1.50	SAMPLE #2
SO3	39.00	
K2O	0.18	
Na2O	0.26	
MgO	0.44	
Total	70.68	

Theoretical calculations

	Elemental Weight	Molecular Equivalent	CaSO4	Na2CO3	MgCO3
Ca	20.9	0.523	90.1		
K	0.1	0.002			
Na	0.1	0.004		0.02	
Mg	0.3	0.011			0.04
Tot eq wt		0.540			
CO3	2.0	0.034		0.06	0.05
SO4	46.8	0.487	83.9		
Tot eq wt		0.522			

CaO	29.90
CO2	1.50
SO3	42.80
K2O	0.13
Na2O	0.23
MgO	0.31
Total	74.87

SAMPLE #3

Theoretical calculations

	Elemental Weight	Molecular Equivalent	CaSO4	Na2CO3	MgCO3
Ca	21.4	0.534	91.9		
K	0.1	0.001			
Na	0.1	0.004		0.02	
Mg	0.2	0.008			0.03
Tot eq wt		0.547			
CO3	2.0	0.034		0.06	0.05
SO4	51.4	0.535	92.1		
Tot eq wt		0.569			