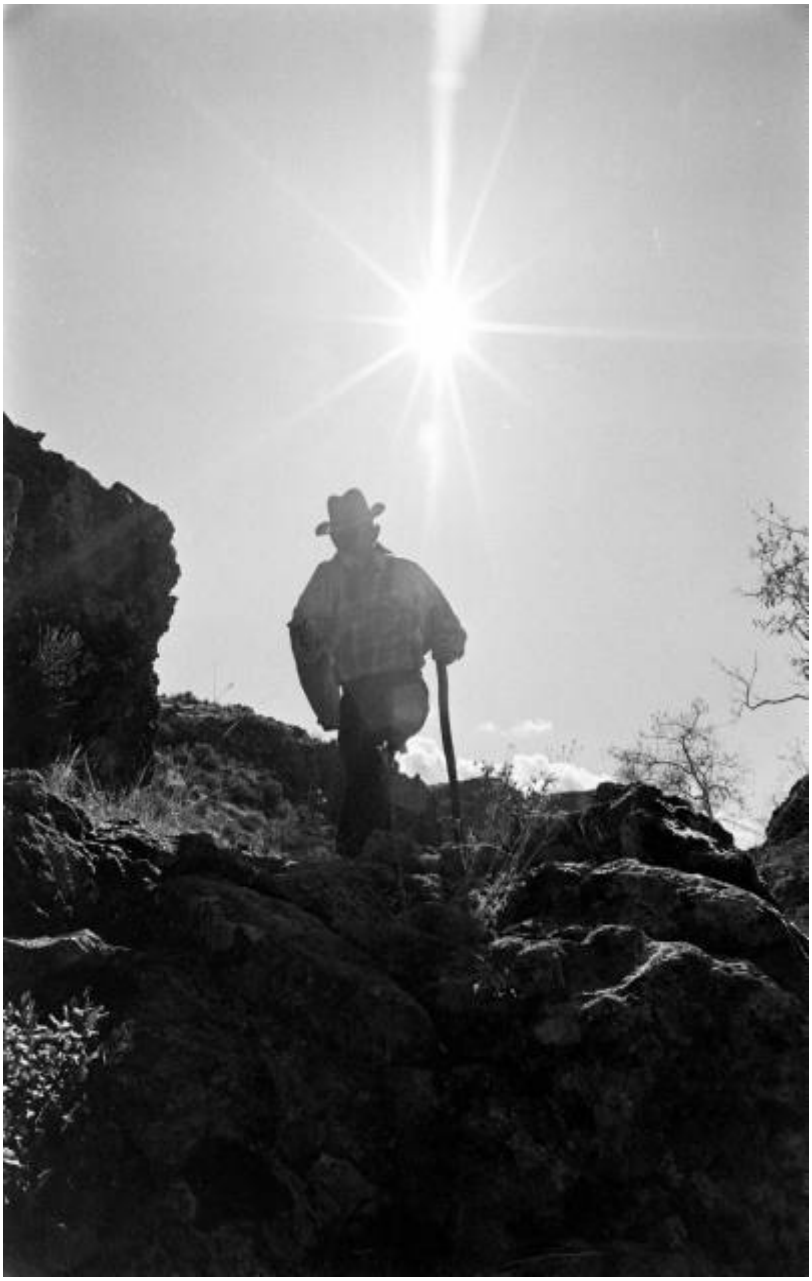

Shea Mining & Milling LLC
Executive Summary

Confidentiality Agreement

The undersigned reader acknowledges that the information provided by Shea Mining & Milling LLC in this business plan is confidential; therefore, reader agrees not to disclose it without the express written permission of Shea Mining & Milling LLC.

It is acknowledged by reader that information to be furnished in this business plan is in all respects confidential in nature, other than information which is in the public domain through other means and that any disclosure or use of same by reader may cause serious harm or damage to Shea Mining & Milling LLC.

Upon request, this document is to be immediately returned to Shea Mining & Milling LLC.

_____
Signature

_____
Name (typed or printed)

_____
Date

This is an Executive Summary. It does not imply an offering of securities.

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1.0 Executive Summary

Shea Mining & Milling LLC (SMM) is a Nevada Corporation and by definition, a Precious Metal Milling, & Mine Tailing Remediation Company. SMM has recently begun the acquisition of a 1500 ton per day Mill in the town of Miller, NV just outside of Tonopah, NV. The Mill, located in Esmeralda County, NV has included in the sale of the Mill, a quantity of 2.2M tons of precious metal rich, mine tailings from the historic mining towns of Tonopah and nearby Goldfield, NV.
In the early 1900's even the largest mining operations utilized primitive milling & mineral extraction methods resulting in only minimal recovery rates. The materials that are left over from this process are called mine tailings. The tailings from these historic mine sites are still rich with precious metals and today are re-milled using modern equipment & processing processes with greatly improved recovery rates. The mine tailings on our property in Millers have been drilled, and assayed utilizing an independent and certified assay laboratory. As of 12/1/09, at current Gold & Silver prices, SMM has more than $73 million dollars of proven Gold & Silver and another $193 Million dollars of probable combined precious metals as above ground assets. It is through the re-milling of these tailings and our recently purchased mine dumps form the nearby Manhattan mining district and our future toll-mill potential that SMM has developed a formula for servicing immediate cash flow needs as well as solidifying the projects long term sustainability.
Besides the processing of precious metals through the mill, there are other valuable resources such as the properties Water Rights, which also have a tremendous cash value of more than $6 million dollars.

2.0 Products and Services

- Shea Mining & Milling LLC's primary business is in the Milling of Gold, Silver & other precious metals.

SMM has acquired the milling property, complete with considerable mine tailings and has also, just recently acquired some precious metal rich, mine dumps for improved overall recovery during processing. The course material in these mine dumps when mixed in with our mine tailings will improve the quality of our grinding and overall recovery will improve.

The Millers Mill property currently contains the following:

- A 1500 ton / day complete precious metal processing & extraction mill including a Ball Mill, Crushing Circuit, Flotation Circuit and all necessary equipment to begin production with minimal renovation.
- 2.2 Million tons of Historic Mine Tailings from the Goldfield & Tonopah NV Mines.
- An Existing Tailings Pond
- (3) Water Wells exist on the property with full Water Rights.

3.0 Market Analysis Summary

The timing of Shea Mining & Milling LLC's entry into the precious metal market is perfect. Since the financial crisis, we have all witnessed a greatly increased injection of currency by almost every

country, globally in an effort to stimulate their economies and free up necessary capital to fuel the fires of their industry. This vast injection in global currencies already has, and should continue, to strengthen the value of certain commodities... including Gold, Silver & other precious metals. With Gold recently breaking $1200.00 USD per Oz and Silver, more than $19.00 per Oz, the value of SMM's above ground assets have already increased in value by more than 45% since the first acquisition in August of 2009.
SMM's focus on property acquisition has been on "quick to market" Gold & Silver extraction and rapid paths to production to fully capitalize on the increased value of these commodities.

4.0 Strategy and Implementation Summary

4.1 Competitive Edge

In a time of economic hardship and uncertainty, SMM, steered by its forward looking and seasoned management team, has maximized its initial investment capital and purchased this world class milling property at just a fraction of its actual value. Whether precious metal values continue to rise, remain the same or fall, at the prices that SMM has acquired these precious metal rich properties, we are very well positioned. The low acquisition price has also lowered the profitability hurdle, enabling SMM to far outperform many other existing milling companies. It also enables SMM to offer competitive compensation packages to key, industry management professionals not typical of a start up organization.

4.2 Marketing Strategy

Today, the publics view on precious metal mining & milling companies are tainted by the environmental mismanagement and general carelessness on the part of many companies operating within this industry, now long gone. You don't have to look very far in states such as Colorado, Nevada, Utah and Arizona to see the thousands of piles of mineral rich, heavily stained mine tailings and dumps that litter the hillsides.
SMM is incorporating a corporate focus on environmentally responsible milling and will initiate an ongoing communicative effort to insure the public understands that we share their concern for our environment. Our management team and their families, our employees and their families live on this planet too. We genuinely care about our environment and institute safe environmental policies in all of our operations
SMM is a milling company that will effectively employ hundreds of the local workforce in a time of great employment need while simultaneously partnering with the local municipalities and environmental groups to contribute to the necessary environmental cleanup of the areas surrounding our operating location.

4.3 Fundraising Strategy

While initially self funded, Shea Mining & Milling LLC seeks to secure additional funding for property acquisition, on-going operations and mill rehabilitation through traditional lending sources or through private investors who share our vision.

5.0 Founders & Management Team

Shea Mining & Milling LLC was founded by the following partners in August of 2009:

- Chris Boll - Mr. Boll has had a long and distinguished career as an Owner/Operator and Senior Executive with several Construction, Mining Construction and Mining Engineering firms. Mr. Boll will lend his extensive expertise and guidance in the Precious Metal Mining & Milling industries in developing SMM's extensive portfolio of Mining & Milling assets. Mr. Boll currently resides Dallas, TX.

- Frank Dasaro - Mr. Dasaro is a 20 year veteran and senior managerial executive with *Sbarro the Italian Eatery*, a major international restaurant corporation. Mr. Dasaro has personally developed the brand in more than 34 Countries and is an expert in new business development and operations. Mr. Dasaro currently resides in New York.
- Richard Mittasch -Mr. Mittasch has been working on Wall Street for the last 12 years as a Bond and Commodities Trader and has also acted as trustee and Fund Manager for a number of Hedge and Private Equity Funds.

Additional Management Team

- John Bazzill - Mr. Bazzill has had more than a 30 year career as a Milling & Metallurgy expert with the Precious Metal Industry. Mr. Bazzill joins the SMM team and will personally oversee all aspects of the Metallurgy and Milling. Mr. Bazzill currently resides in Skull Valley Arizona.
- Mr. Rob FitzGerald – Mr. FitzGerald has extensive Mining & Milling experience of more than 20 years working in Leadville, CO and Alaska. Mr. FitzGerald joins SMM to lend his expertise to the Milling operation and supervise all aspects of the Mills Operation.

6.0 Financial Projections

	Proven Ounces			Probable		
Project	**Au (Gold)**	**Ag (Silver)**	**Mn(Manganese)**	**Au**	**Ag**	**Mn**
Millers, NV	17,140	2.75 Million	TBD			66,000 tons
Manhattan District Dumps				10,000 oz		

Financial Assumptions based upon Au @ $1200.00/oz 12/1/09

Ag @ $19.30 / oz 12/1/09

Mg @ $2600 / ton 12/1/09

Current estimated value of above ground assets

Millers Tailings $20,568,000 Proven Gold Value $53,075,000 Proven Silver Value

Millers Tailings Manganese $171,600,000 Probable Mn Value

Manhattan Dumps $12,000,000 Probable Gold Value

Operational Summary –Shea Milling & Mining LLC - Millers, NV

SMM's operation will firstly begin by processing the existing Tonopah, NV at the Millers Mill facility. The mill is already under renovation with permit applications in processing and should be fully completed and operational within the next 6-9 months. Initially, the mill will begin processing the 2.2M tons of existing mine tailings mixed with the Manhattan Districts ore dumps purchased from nearby Manhattan, NV. SMM has purchased more than 100,000 tons of these valuable ore dumps, to increase the mills head grade and greatly improving the tailings mill grind, ultimately, increasing Au, Ag and Mn yields.

It will take only 2-3 years of continuous operation to process all 2.2 Million tons of existing tailings and the 100K tons of ore dumps from the Manhattan district. The Tonopah projects tailings alone, which have been drilled, cored and assayed, have a proven total value as of 12/1/09 of more than $73 Million and a probable added value of $193 Million in precious metals. At a conservative extraction rate of only 70% will yield more than $51million in Au & Ag with another probable extraction of more than $135 Million in precious metals.

Water Rights and Toll Mill Capabilities – Shea Mining & Milling

Ancillary to the business of processing our existing, on-site mine tailings and the Manhattan District ore dumps, there are more than $6 million dollars in valuable, Nevada water rights that come with the Mill property, as well as (3) water wells already located on the property. The option to sell or lease these water rights is very real and could be very profitable.

The Mill will also be one of the only operational mills within 35 miles and as there are several mining properties located within this radius, coming into production with nowhere to process their ore, there is real potential to operate SMM's Mill at Miller as a toll mill and process the ore from these other mines for a fee, creating additional revenue.

From the executive summary above, it should become evident that Shea Milling & Mining has secured the makings of a successful Milling property. With the funding necessary to continue with our current acquisition of the Mill & completion of the Mill renovation will be well positioned for the processing of precious metals on a large and profitable scale.

The timing of SMM's initiatives with the current global economic conditions may never be better and as we bear witness to the steady rise in the market value of these precious metals, we feel ever more confident that our current path is accurate and true.

We hope that you will share our vision and choose to work with us as a trusted and valued partner.

Respectfully Submitted,

Chris Boll
Director

SHEA MINING & MILLING
Financials Summary

Monthly Corporate Income and Expense Statement
With Mill Summary

shea Shea Mining & milling, LLC

Budget **Summary**

Projections Corp Summary

month	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09
Income Form Mill Site						
Tonopah mill Total	-	-	-	-	-	-
Expenses from Mill site						
Tonopah mill Total	-	50,000	2,609,200	70,820	60,669	68,669
Shea Expenses						
Office Supplies and Storage	195	195	195	195	300	400
Legal & other Pro services	-	-	-	-	10,000	10,000
Accounting services	-	-	-	675	4,000	5,000
Insurance Liability	-	-	-	-	-	3,000
Directors and Officer Insurance	-	-	-	-	-	-
Travel, Meal & Mis exp	2,000	2,500	4,000	10,000	15,000	15,000
Shea Staff Cost	-	-	-	-	-	-
Health Insurance and HR Cost	-	-	-	-	-	-
Shea Expenses total	**2,195**	**2,695**	**4,195**	**10,870**	**29,300**	**33,400**
Management Cost						
Shea Management	20,000	20,000	30,000	60,000	80,000	80,000
Renovation/ Consultation Manag..	-	-	-		-	
Enginering Staff	-	-	-	-	12,500	12,500
Mill Superintendant	-	-	-	-	6,250	6,250
Geologist Staff	-	-	-	-	6,667	6,667
MSHA Safety Compliance Pro & Train	-	-	-	-	-	1,500
Management total	**20,000**	**20,000**	**30,000**	**60,000**	**105,417**	**106,917**
Total Expenses	**22,195**	**72,695**	**2,643,395**	**141,690**	**195,386**	**208,986**
Capital Improvements (assets)						
Land acquisition closed	250,000	-	2,765,000	-	-	-
	-	-	-	-	-	-
Capital Outlook Outlay						
Cash Flow (income - Exp)	(22,195)	(72,695)	(2,643,395)	(141,690)	(195,386)	(208,986)
Cash Account (bal)	(22,195)	(94,890)	(2,738,285)	(2,879,975)	(3,075,361)	(3,284,347)
Debt Account (bal)	(22,195)	(94,890)	(2,738,285)	(12,879,975)	(13,075,361)	(13,284,347)
Debt services	-	-	-	-	-	-
Current Cash EIBT	-	-	-	-	-	-
Account Balance						

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Shea Mining & milling, LLC

Budget **Summary** *Projection*

Projections Totals Corp Summary

month	Dec-09	End 2009	Jan-10	Feb-10	Mar-10
Income Form Mill Site					
Tonopah mill Total	-	-	44,750	3,759,000	3,759,000
Expenses from Mill site					
Tonopah mill Total	551,177	3,410,535	629,225	1,292,477	3,145,877
Shea Expenses					
Office Supplies and Storage	400	1,880	2,000	2,000	2,000
Legal & other Pro services	10,000	30,000	20,833	20,833	20,833
Accounting services	5,000	14,675	10,000	10,000	10,000
Insurance Liability	3,000	6,000	3,000	3,000	3,000
Directors and Officer Insurance	-	-	-	4,000	4,000
Travel, Meal & Mis exp	15,000	63,500	15,000	15,000	10,000
Shea Staff Cost	-	-	-	1,000	2,000
Health Insurance and HR Cost	-	-	-	-	-
Shea Expenses total	**33,400**	116,055	**50,833**	**55,833**	**51,833**
Management Cost		-			
Shea Management	80,000	370,000	80,000	80,000	80,000
Renovation/ Consultation Manag..		-			
Enginering Staff	12,500	37,500	12,500	12,500	12,500
Mill Superintendant	6,250	18,750	6,250	6,250	6,250
Geologist Staff	6,667	20,000	6,667	6,667	6,667
MSHA Safety Compliance Pro & Train	2,000	3,500	1,500	5,000	5,000
Management total	**107,417**	449,750	**106,917**	**110,417**	**110,417**
Total Expenses	**691,994**	3,976,340	**786,975**	**1,458,727**	**3,308,127**
Capital Improvements (assets)		-			
Land acquisition closed	-	3,015,000	-	-	-
	-	-	-	-	-
Capital Outlook Outlay		-			
Cash Flow (income - Exp)	(691,994)	-	(742,225)	2,300,273	450,873
Cash Account (bal)	(3,976,340)	-	(4,718,565)	(2,418,292)	(1,967,419)
Debt Account (bal)	(13,976,340)	-	(14,718,565)	(12,418,292)	(11,967,419)
Debt services	-	-	-	-	-
Current Cash EIBT	-		-	-	-
Account Balance		-			

shea
Budget **Summary**
Projections

Shea Mining & milling
Projection
Corp Summary

month	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
Income Form Mill Site						
Tonopah mill Total	3,759,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000
Expenses from Mill site						
Tonopah mill Total	1,020,600	1,026,000	1,031,200	1,056,000	1,061,000	1,051,500
Shea Expenses						
Office Supplies and Storage	2,000	2,000	2,000	2,000	2,000	2,000
Legal & other Pro services	20,833	20,833	20,833	20,833	20,833	20,833
Accounting services	10,000	10,000	10,000	10,000	10,000	10,000
Insurance Liability	3,000	3,000	3,000	3,000	3,000	3,000
Directors and Officer Insurance	4,000	4,000	4,000	4,000	4,000	4,000
Travel, Meal & Mis exp	10,000	10,000	10,000	10,000	10,000	10,000
Shea Staff Cost	2,000	2,000	2,000	2,000	2,000	2,000
Health Insurance and HR Cost	6,000	6,000	6,000	6,000	6,000	6,000
Shea Expenses total	**57,833**	**57,833**	**57,833**	**57,833**	**57,833**	**57,833**
Management Cost						
Shea Management	80,000	80,000	80,000	80,000	80,000	80,000
Renovation/ Consultation Manag..						
Enginering Staff	12,500	12,500	12,500	12,500	12,500	12,500
Mill Superintendant	6,250	6,250	6,250	6,250	6,250	6,250
Geologist Staff	6,667	6,667	6,667	6,667	6,667	6,667
MSHA Safety Compliance Pro & Train	5,000	5,000	5,000	5,000	5,000	5,000
Management total	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**
Total Expenses	**1,188,850**	**1,194,250**	**1,199,450**	**1,224,250**	**1,229,250**	**1,219,750**
Capital Improvements (assets)						
Land acquisition closed	-	-	-	-	-	-
	-	-	-	-	-	-
Capital Outlook Outlay						
Cash Flow (income - Exp)	2,570,150	6,323,750	6,318,550	6,293,750	6,288,750	6,298,250
Cash Account (bal)	2,570,150	8,893,900	15,212,450	21,506,200	27,794,950	34,093,200
Debt Account (bal)	(10,802,018)	(7,748,164)	(4,666,370)	(1,566,159)	1,562,555	4,727,305
Debt services	1,285,075	3,161,875	3,159,275	3,146,875	3,144,375	3,149,125
Current Cash EIBT	1,285,075	5,732,025	12,053,175	18,359,325	24,650,575	30,944,075
Account Balance	(10,682,344)	(5,069,993)	4,305,011	13,692,955	23,084,416	32,506,630

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Budget Summary *Projection*

Projections Totals Corp Summa

month	Oct-10	Nov-10	Dec-10	End 2010	Jan-11
Income Form Mill Site					
Tonopah mill Total	7,518,000	7,518,000	7,518,000	71,465,750	7,518,000
Expenses from Mill site					
Tonopah mill Total	1,027,900	1,031,900	1,032,900	14,406,579	274,950
Shea Expenses					
Office Supplies and Storage	2,000	2,000	2,000	24,000	3,000
Legal & other Pro services	20,833	20,833	20,833	250,000	20,833
Accounting services	10,000	10,000	30,000	140,000	10,000
Insurance Liability	3,000	3,000	3,000	36,000	3,000
Directors and Officer Insurance	4,000	4,000	4,000	44,000	4,000
Travel, Meal & Mis exp	10,000	10,000	10,000	130,000	10,000
Shea Staff Cost	2,000	2,000	2,000	21,000	2,000
Health Insurance and HR Cost	6,000	6,000	6,000	54,000	6,000
Shea Expenses total	**57,833**	**57,833**	**77,833**	699,000	**58,833**
Management Cost					
Shea Management	80,000	80,000	80,000	960,000	80,000
Renovation/ Consultation Manag..				-	
Enginering Staff	12,500	12,500	12,500	150,000	12,500
Mill Superintendant	6,250	6,250	6,250	75,000	6,250
Geologist Staff	6,667	6,667	6,667	80,000	6,667
MSHA Safety Compliance Pro & Train	5,000	5,000	5,000	56,500	5,000
Management total	**110,417**	**110,417**	**110,417**	1,321,500	**110,417**
Total Expenses	**1,196,150**	**1,200,150**	**1,221,150**	16,427,079	**444,200**
Capital Improvements (assets)				-	
Land acquisition closed	**-**	**-**	**-**	-	**-**
	-	**-**	**-**	-	**-**
Capital Outlook Outlay				**-**	
Cash Flow (income - Exp)	6,321,850	6,317,850	6,296,850		7,073,800
Cash Account (bal)	40,415,050	46,732,900	53,029,750		60,103,550
Debt Account (bal)	7,935,503	11,173,783	14,433,946		-
Debt services	3,160,925	3,158,925	3,148,425	26,514,875	-
Current Cash EIBT	37,254,125	43,573,975	49,881,325		60,103,550
Account Balance	41,981,430	51,509,478	61,055,108	-	74,537,496

month	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11
Income Form Mill Site						
Tonopah mill Total	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000
Expenses from Mill site						
Tonopah mill Total	274,950	287,950	289,150	305,150	304,550	278,950
Shea Expenses						
Office Supplies and Storage	3,000	3,000	3,000	3,000	3,000	3,000
Legal & other Pro services	20,833	20,833	20,833	20,833	20,833	20,833
Accounting services	10,000	10,000	10,000	10,000	10,000	10,000
Insurance Liability	3,000	3,000	3,000	3,000	3,000	3,000
Directors and Officer Insurance	4,000	4,000	4,000	4,000	4,000	4,000
Travel, Meal & Mis exp	10,000	10,000	10,000	10,000	10,000	10,000
Shea Staff Cost	2,000	2,000	2,000	2,000	2,000	2,000
Health Insurance and HR Cost	6,000	6,000	8,000	8,000	8,000	8,000
Shea Expenses total	**58,833**	**58,833**	**60,833**	**60,833**	**60,833**	**60,833**
Management Cost						
Shea Management	80,000	80,000	80,000	80,000	80,000	80,000
Renovation/ Consultation Manag..						
Enginering Staff	12,500	12,500	12,500	12,500	12,500	12,500
Mill Superintendant	6,250	6,250	6,250	6,250	6,250	6,250
Geologist Staff	6,667	6,667	6,667	6,667	6,667	6,667
MSHA Safety Compliance Pro & Train	5,000	5,000	5,000	5,000	5,000	5,000
Management total	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**
Total Expenses	**444,200**	**457,200**	**460,400**	**476,400**	**475,800**	**450,200**
Capital Improvements (assets)						
Land acquisition closed	-	-	-	-	-	-
	-	-	-	-	-	-
Capital Outlook Outlay						
Cash Flow (income - Exp)	7,073,800	7,060,800	7,057,600	7,041,600	7,042,200	7,067,800
Cash Account (bal)	67,177,350	74,238,150	81,295,750	88,337,350	95,379,550	102,447,350
Debt Account (bal)	-	-	-	-	-	-
Debt services	-	-	-	-	-	-
Current Cash EIBT	67,177,350	74,238,150	81,295,750	88,337,350	95,379,550	102,447,350
Account Balance	67,177,350	74,238,150	81,295,750	88,337,350	95,379,550	102,447,350

shea g, LLC Shea Mining & milling, LLC

Budget **Summary** *Projection*

Projections Corp Summary Totals

month	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	End 2011
Income Form Mill Site						
Tonopah mill Total	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	90,216,000
Expenses from Mill site						
Tonopah mill Total	278,950	278,950	283,950	279,150	285,750	3,422,400
Shea Expenses						
Office Supplies and Storage	3,000	3,000	3,000	3,000	3,000	36,000
Legal & other Pro services	20,833	20,833	20,833	20,833	20,833	250,000
Accounting services	10,000	10,000	10,000	10,000	30,000	140,000
Insurance Liability	3,000	3,000	3,000	3,000	3,000	36,000
Directors and Officer Insurance	4,000	4,000	4,000	4,000	4,000	48,000
Travel, Meal & Mis exp	10,000	10,000	10,000	10,000	10,000	120,000
Shea Staff Cost	2,000	2,000	2,000	2,000	2,000	24,000
Health Insurance and HR Cost	8,000	8,000	8,000	8,000	8,000	90,000
Shea Expenses total	**60,833**	**60,833**	**60,833**	**60,833**	**80,833**	744,000
Management Cost						
Shea Management	80,000	80,000	80,000	80,000	80,000	960,000
Renovation/ Consultation Manag..						-
Enginering Staff	12,500	12,500	12,500	12,500	12,500	150,000
Mill Superintendant	6,250	6,250	6,250	6,250	6,250	75,000
Geologist Staff	6,667	6,667	6,667	6,667	6,667	80,000
MSHA Safety Compliance Pro & Train	5,000	5,000	5,000	5,000	5,000	60,000
Management total	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**	1,325,000
Total Expenses	**450,200**	**450,200**	**455,200**	**450,400**	**477,000**	5,491,400
Capital Improvements (assets)						-
Land acquisition closed	**-**	**-**	**-**	**-**	**-**	-
	-	**-**	**-**	**-**	**-**	-
Capital Outlook Outlay						
Cash Flow (income - Exp)	7,067,800	7,067,800	7,062,800	7,067,600	7,041,000	
Cash Account (bal)	109,515,150	116,582,950	123,645,750	130,713,350	137,754,350	
Debt Account (bal)	-	-	-	-	-	
Debt services	-	-	-	-	-	-
Current Cash EIBT	109,515,150	116,582,950	123,645,750	130,713,350	137,754,350	
Account Balance	109,515,150	116,582,950	123,645,750	130,713,350	137,754,350	-

shea
Budget **Summary**
Projections

Shea Mining & milling, LLC
Projection
Corp Summary

month	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
Income Form Mill Site						
Tonopah mill Total	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000
Expenses from Mill site						
Tonopah mill Total	284,200	305,400	288,200	239,400	248,800	234,200
Shea Expenses						
Office Supplies and Storage	3,000	3,000	3,000	3,000	3,000	3,000
Legal & other Pro services	20,833	20,833	20,833	20,833	20,833	20,833
Accounting services	10,000	10,000	10,000	10,000	10,000	10,000
Insurance Liability	3,000	3,000	3,000	3,000	3,000	3,000
Directors and Officer Insurance	4,000	4,000	4,000	4,000	4,000	4,000
Travel, Meal & Mis exp	10,000	10,000	10,000	10,000	10,000	10,000
Shea Staff Cost	2,000	2,000	2,000	2,000	2,000	2,000
Health Insurance and HR Cost	8,000	8,000	9,000	9,000	9,000	9,000
Shea Expenses total	**60,833**	**60,833**	**61,833**	**61,833**	**61,833**	**61,833**
Management Cost						
Shea Management	80,000	80,000	80,000	80,000	80,000	80,000
Renovation/ Consultation Manag..						
Enginering Staff	12,500	12,500	12,500	12,500	12,500	12,500
Mill Superintendant	6,250	6,250	6,250	6,250	6,250	6,250
Geologist Staff	6,667	6,667	6,667	6,667	6,667	6,667
MSHA Safety Compliance Pro & Train	5,000	5,000	5,000	5,000	5,000	5,000
Management total	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**
Total Expenses	**455,450**	**476,650**	**460,450**	**411,650**	**421,050**	**406,450**
Capital Improvements (assets)						
Land acquisition closed	-	-	-	-	-	-
	-	-	-	-	-	-
Capital Outlook Outlay						
Cash Flow (income - Exp)	7,062,550	7,041,350	7,057,550	7,106,350	7,096,950	7,111,550
Cash Account (bal)	144,816,900	151,858,250	158,915,800	166,022,150	173,119,100	180,230,650
Debt Account (bal)	-	-	-	-	-	-
Debt services						
Current Cash EIBT	144,816,900	151,858,250	158,915,800	166,022,150	173,119,100	180,230,650
Account Balance	144,816,900	151,858,250	158,915,800	166,022,150	173,119,100	180,230,650

month	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Income Form Mill Site						
Tonopah mill Total	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000
Expenses from Mill site						
Tonopah mill Total	234,200	254,200	239,200	234,200	239,400	241,400
Shea Expenses						
Office Supplies and Storage	3,000	3,000	3,000	3,000	3,000	3,000
Legal & other Pro services	20,833	20,833	20,833	20,833	20,833	20,833
Accounting services	10,000	10,000	10,000	10,000	10,000	30,000
Insurance Liability	3,000	3,000	3,000	3,000	3,000	3,000
Directors and Officer Insurance	4,000	4,000	4,000	4,000	4,000	4,000
Travel, Meal & Mis exp	10,000	10,000	10,000	10,000	10,000	10,000
Shea Staff Cost	2,000	2,000	2,000	2,000	2,000	2,000
Health Insurance and HR Cost	9,000	9,000	9,000	9,000	9,000	9,000
Shea Expenses total	**61,833**	**61,833**	**61,833**	**61,833**	**61,833**	**81,833**
Management Cost						
Shea Management	80,000	80,000	80,000	80,000	80,000	80,000
Renovation/ Consultation Manag..						
Enginering Staff	12,500	12,500	12,500	12,500	12,500	12,500
Mill Superintendant	6,250	6,250	6,250	6,250	6,250	6,250
Geologist Staff	6,667	6,667	6,667	6,667	6,667	6,667
MSHA Safety Compliance Pro & Train	5,000	5,000	5,000	5,000	5,000	5,000
Management total	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**	**110,417**
Total Expenses	**406,450**	**426,450**	**411,450**	**406,450**	**411,650**	**433,650**
Capital Improvements (assets)						
Land acquisition closed	-	-	-	-	-	-
	-	-	-	-	-	-
Capital Outlook Outlay						
Cash Flow (income - Exp)	7,111,550	7,091,550	7,106,550	7,111,550	7,106,350	7,084,350
Cash Account (bal)	187,342,200	194,433,750	201,540,300	208,651,850	215,758,200	222,842,550
Debt Account (bal)	-	-	-	-	-	-
Debt services						
Current Cash EIBT	187,342,200	194,433,750	201,540,300	208,651,850	215,758,200	222,842,550
Account Balance	187,342,200	194,433,750	201,540,300	208,651,850	215,758,200	222,842,550

shea ng & milling, LLC

Budget Summary

Projections Totals

month	End 2012
Income Form Mill Site	
Tonopah mill Total	90,216,000
Expenses from Mill site	
Tonopah mill Total	3,042,800
Shea Expenses	
Office Supplies and Storage	36,000
Legal & other Pro services	250,000
Accounting services	140,000
Insurance Liability	36,000
Directors and Officer Insurance	48,000
Travel, Meal & Mis exp	120,000
Shea Staff Cost	24,000
Health Insurance and HR Cost	106,000
Shea Expenses total	760,000
Management Cost	
Shea Management	960,000
Renovation/ Consultation Manag..	-
Enginering Staff	150,000
Mill Superintendant	75,000
Geologist Staff	80,000
MSHA Safety Compliance Pro & Train	60,000
Management total	1,325,000
Total Expenses	5,127,800
Capital Improvements (assets)	-
Land acquisition closed	-
	-
Capital Outlook Outlay	**-**
Cash Flow (income - Exp)	
Cash Account (bal)	
Debt Account (bal)	
Debt services	-
Current Cash EIBT	
Account Balance	-

Property (Tonopah Mill) Shea Mining & milling, LLC

Shea Mining & milling, LLC *Projection*

Budget (Draft) **Mill site Budget (Draft)**

Type	month	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09
Acq	**Acquisition cost**							
	Payments	-	50,000	2,600,000	3,577	-	-	-
Land Fees ar	**Land Fees and permitting**	-						
	Land Taxes	-	-	-	-	-	-	-
	Permitting consulting fees	-	-	-	1,289	1,289	1,289	25,000
	Permit / land Bond fees	-	-	-	-	-	-	25,000
	Property Insurance	-	-	-	-	-	-	25,000
Development	**Development improvement**							
	Milling equipment (Acquisition, No movable)	-	-	-	-	-	-	40,000
	Spare Parts	-	-	-	-	-	-	25,000
	Mill Site Preparation Rock	-	-	-	-	-	-	4,300
	Mill building and Road ways Exp	-	-	-	-	-	-	12,000
	Geology exploration (drilling)	-	-	-	26,900	26,900	26,900	-
	Other Fixed Assets	-	-	-	-	-	-	4,500
	Tailings Management	-	-	-	-	-	-	-
	Renovation Costs							
	Supervision Steve Rogers	-	-	-	4,800	4,800	4,800	13,800
	John Bassill	-	-	-	9,029	-	-	6,000
	Skilled Millwright Labor	-	-	-	-	-	6,000	34,000
	Skilled Electrical Labor	-	-	-	-	-	-	34,000
	Prison Labor					4,000	6,000	6,000
	Petty cash				4,000	4,000	4,000	12,327
	Renovation Materials Costs							
	Steel and Grading	-	-	-	-	-	-	20,000
	Pipe and Fittings							4,500
	Electric Parts							45,000
	Paint	-	-	-	-	-	-	2,500
	Consumables	-	-	-	-	-	-	4,500
	Construction Materials	-	-	-	2,500	2,500	2,500	4,000
	Fence Materials and Gates	-	-	-	-	-	-	1,100
	Signs	-	-	-	-	-	-	2,500
	Security	-	-	-	1,000	1,000	1,000	1,000
Rolling Stock	**Rolling Stock**	-	-	-	-	-	-	-
	Trucks / Cars (road use)	-	-	-	6,780	6,780	6,780	40,000
	Rental Dump Trucks (mine use)	-	-	-	-	-	-	2,500
	Rental Land Movers (EXP..Front end loader)	-	-	-	-	-	-	25,000
	Off Road Quad (Mine Use)	-	-	-	-	-	-	36,000
	Rental Forklift	-	-	-	-	-	-	2,800
	Rental Crane	-	-	-	-	-	-	5,600
	Bobcat	-	-	-	-	-	-	2,200
	Rental Man lift	-	-	-	-	-	-	4,200
	Rental Generator	-	-	-	-	-	-	7,200
	Welders	-	-	-	2,000	2,000	2,000	-
	Small tool Rental	-	-	-	-	-	-	900
	Rental Office Trailer	-	-	-	-	-	-	750
Power and	**Power and Water**							
	Electric Cost	-	-	-	-	-	-	2,000
	Fuel Cost (diesel)	-	-	-	2,800	2,800	2,800	3,500
	Water Cost Rebuild pumps	-	-	-	-	-	-	45,000
	Per Ton Ore Fee delivered	-	-	-	-	-	-	-
Laboratory and	**Laboratory and Q.A.**							
	Lab Lease Cost	-	-	-	-	-	-	5,000
	Lab Equipment and Chem. Cost	-	-	-	-	-	-	3,500
	Out Lab Cost	-	-	-	-	-	-	12,000
	Assays / Appraise Cost	-	-	9,200	3,600	3,600	3,600	-
	technicians	-	-	-	-	-	-	-
Staff	**Shea Staff (paid by GCG booked local)**							
	Management	-	-	-	-	-	-	-
	Security	-	-	-	1,000	1,000	1,000	1,000
	Safety supervisor	-	-	-	-	-	-	-
	Millwright	-	-	-	-	-	-	-
	maintenance staff							
	Housing Rent	-	-	-	1,545	-	-	-
	Smelting and Transportation							
	Armored car/ Con. Transp. cost	-	-	-	-	-	-	-
	Smelting cost	-	-	-	-	-	-	-
	Metal account Cost	-	-	-	-	-	-	-
	Net Smelter Royalties	-	-	-	-	-	-	-
	Production Per Month (Tons)	-	-	-	-	-	-	-
	Metal Sales (Gross)	-	-	-	-	-	-	-
	Totals Monthly Income							
	Totals Monthly EXP	-	50,000	2,609,200	70,820	60,669	68,669	551,177

Metal Sales = the Production per month by the Avg.

Avg Grade Value	**89.5**
Gold Grade Per OZ/Ton	0.07
Silver Grade Per OZ/Ton	2
Price Gold	$850.00
Price Silver	$15.00

Property (Tonopah Mill) Shea Mining & milling, LLC

Shea Mining & milling, LLC *Projection*

Budget (Draft) Totals **Mill site Budget (Draft)**

Type	month	End 2009	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Acq	**Acquisition cost**							
	Payments	2,653,577		-	2,500,000	-	-	-
Land Fees ar	**Land Fees and permitting**							
	Land Taxes	-	-	6,000	-	-	-	-
	Permitting consulting fees	28,867	-	-	5,000	-	-	-
	Permit / land Bond fees	25,000	15,000	15,000	-	25,000		-
	Property Insurance	25,000	25,000	4,500	4,500	4,500	4,500	4,500
Development	**Development improvement**							
	Milling equipment (Acquisition, No movable)	40,000	140,000	315,000	20,000	300,000	20,000	20,000
	Spare Parts	25,000	75,000	300,000	4,000	60,000	4,000	4,000
	Mill Site Preparation Rock	4,300	4,300	-	-	5,000	-	5,000
	Mill building and Road ways Exp	12,000	95,000	22,000	10,000	-	-	-
	Geology exploration (drilling)	80,700	-	-	-	-	-	-
	Other Fixed Assets	4,500	4,500	4,500	-	-	-	-
	Tailings Management	-	-	-	-	-	7,000	7,000
	Renovation Costs							
	Supervision Steve Rogers	28,200	13,800	13,800	12,500	12,500	-	-
	John Bassill	15,029	6,000	6,000	22,000	-	-	-
	Skilled Millwright Labor	40,000	45,000	45,000	9,700	-	-	-
	Skilled Electrical Labor	34,000	34,000	45,000	9,700	-	-	-
	Prison Labor	16,000	6,000	6,000	6,000			
	Petty cash	24,327	24,600	12,327	12,327	5,000		
	Renovation Materials Costs							
	Steel and Grading	20,000	8,700	4,500	1,200	-	-	-
	Pipe and Fittings	4,500	3,000	3,000	1,200	400	400	400
	Electric Parts	45,000	20,000	20,000		300	300	300
	Paint	2,500	7,000	3,000	900	-	-	-
	Consumables	4,500	4,500	4,500	2,200	2,500	2,500	2,500
	Construction Materials	11,500	4,000	6,500	800	400	400	400
	Fence Materials and Gates	1,100	8,700	2,800	-	-	-	-
	Signs	2,500	2,500	-	600	-	-	200
	Security	4,000	1,000	1,000	1,000	1,000	-	-
Rolling Stock	**Rolling Stock**	-	-	-	-	-	-	-
	Trucks / Cars (road use)	60,340	-	-	-	-	-	-
	Rental Dump Trucks (mine use)	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Rental Land Movers (EXP..Front end loader)	25,000	25,000	25,000	6,800	6,800	6,800	6,800
	Off Road Quad (Mine Use)	36,000	-	-	-	-	-	-
	Rental Forklift	2,800	2,800	2,800	2,800	2,800	2,800	2,800
	Rental Crane	5,600	5,600	5,600	4,200	4,200	4,200	4,200
	Bobcat	2,200	2,200	2,200	1,200	1,200	1,200	1,200
	Rental Man lift	4,200	4,200	4,200	4,200	4,200	4,200	4,200
	Rental Generator	7,200	7,200	7,200	1,500	1,500	1,500	1,500
	Welders	6,000	-	-	-	-	-	-
	Small tool Rental	900	900	900	900	900	900	900
	Rental Office Trailer	750	750	750	750	-	-	-
Power and	**Power and Water**							
	Electric Cost	2,000	2,000	7,500	15,000	75,000	75,000	75,000
	Fuel Cost (diesel)	11,900	3,500	3,500	3,500	3,500	3,500	3,500
	Water Cost Rebuild pumps	45,000	12,000	2,000	2,000	2,000	2,000	2,000
	Per Ton Ore Fee delivered	-	-	-	-	-	-	-
Laboratory and	**Laboratory and Q.A.**							
	Lab Lease Cost	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	Lab Equipment and Chem. Cost	3,500	3,500	3,500	3,500	3,500	3,500	3,500
	Out Lab Cost	12,000	-	-	-	-	1,000	1,000
	Assays / Appraise Cost	20,000	-	-	-	-	-	-
	technicians	-	-	-	-	-	6,000	6,000
Staff	**Shea Staff (paid by GCG booked local)**							
	Management	-	-	-	-	12,500	12,500	12,500
	Security	4,000	-	1,000	-	3,000	3,000	3,000
	Safety supervisor	-	-	-	-	7,000	7,000	7,000
	Millwright	-	-	-	45,000	45,000	45,000	45,000
	maintenance staff							
	Housing Rent	1,545	-	-	45,000	45,000	45,000	45,000
	Smelting and Transportation							
	Armored car/ Con. Transp. cost	-	-	2,000	2,000	2,000	2,000	2,000
	Smelting cost	-	4,475	375,900	375,900	375,900	751,800	751,800
	Metal account Cost	-	-	500	500	500	500	500
	Net Smelter Royalties	-	448	37,590	37,590	37,590	75,180	75,180
	Production Per Month (Tons)	-	**500**	**42,000**	**42,000**	**42,000**	**84,000**	**84,000**
	Metal Sales (Gross)	-	44,750	3,759,000	3,759,000	3,759,000	7,518,000	7,518,000
	Totals Monthly Income		**44,303**	**3,721,410**	**3,721,410**	**3,721,410**	**7,442,820**	**7,442,820**
	Totals Monthly EXP	3,410,535	629,225	1,292,477	3,145,877	1,020,600	1,026,000	1,031,200

Property (Tonopah Mill)

Shea Mining & milling, LLC

Budget (Draft)

Shea Mining & milling, LLC

Projection

Mill site Budget (Draft)

Type	month	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Totals End 2010
Acq	**Acquisition cost**							
	Payments	-	-	-	-	-	-	2,500,000
Land Fees ar	**Land Fees and permitting**							
	Land Taxes	-	-	-	-	-	6,400	12,400
	Permitting consulting fees	5,000	5,000	-	-	-	-	15,000
	Permit / land Bond fees	-	-	25,000	-	-	-	80,000
	Property Insurance	4,500	4,500	4,500	4,500	4,500	4,500	74,500
Development	**Development improvement**							
	Milling equipment (Acquisition, No movable)	20,000	20,000	20,000	20,000	20,000	20,000	935,000
	Spare Parts	4,000	4,000	4,000	4,000	4,000	4,000	471,000
	Mill Site Preparation Rock	-	-	-	-	5,000	-	19,300
	Mill building and Road ways Exp	-	10,000	-	-	-	-	137,000
	Geology exploration (drilling)	20,000	-	-	-	-	-	20,000
	Other Fixed Assets	-	-	-	-	-	-	9,000
	Tailings Management	7,000	7,000	7,500	7,500	7,500	7,500	58,000
	Renovation Costs							
	Supervision Steve Rogers	-	-	-	-	-	-	52,600
	John Bassill	-	20,000	-	-	-	-	54,000
	Skilled Millwright Labor	-	-	-	-	-	-	99,700
	Skilled Electrical Labor	-	-	-	-	-	-	88,700
	Prison Labor							
	Petty cash	5,000						59,254
	Renovation Materials Costs							
	Steel and Grading	-	-	-	1,200	-	-	15,600
	Pipe and Fittings	400	400	400	400	400	400	10,800
	Electric Parts	300	300	300	300	300	300	42,700
	Paint	-	-	-	-	-	-	10,900
	Consumables	2,500	2,500	2,500	2,500	2,500	2,500	33,700
	Construction Materials	400	400	400	400	400	400	14,900
	Fence Materials and Gates	-	-	-	-	400	-	11,900
	Signs	-	-	-	200	-	-	3,500
	Security	-	-	-	-	-	-	4,000
Rolling Stock	**Rolling Stock**	**-**	**-**	**-**	**-**	**-**	**-**	-
	Trucks / Cars (road use)	**-**	**-**	**-**	**-**	**-**	**-**	-
	Rental Dump Trucks (mine use)	2,500	2,500	2,500	2,500	2,500	2,500	30,000
	Rental Land Movers (EXP..Front end loader)	6,800	6,800	6,800	6,800	6,800	6,800	118,000
	Off Road Quad (Mine Use)	-	-	-	-	-	-	-
	Rental Forklift	2,800	2,800	2,800	2,800	2,800	2,800	33,600
	Rental Crane	4,200	4,200	4,200	4,200	4,200	4,200	53,200
	Bobcat	1,200	1,200	1,200	1,200	1,200	1,200	16,400
	Rental Man lift	4,200	4,200	4,200	4,200	4,200	4,200	50,400
	Rental Generator	1,500	1,500	1,500	1,500	1,500	1,500	29,400
	Welders	-	-	-	-	-	-	-
	Small tool Rental	900	900	900	900	900	900	10,800
	Rental Office Trailer	-	-	-	-	-	-	2,250
Power and	**Power and Water**							
	Electric Cost	75,000	75,000	75,000	75,000	75,000	75,000	699,500
	Fuel Cost (diesel)	3,500	3,500	3,500	3,500	3,500	3,500	42,000
	Water Cost Rebuild pumps	2,000	2,000	2,000	2,000	2,000	2,000	34,000
	Per Ton Ore Fee delivered	**-**	**-**	**-**	**-**	**-**	**-**	-
Laboratory and	**Laboratory and Q.A.**							
	Lab Lease Cost	5,000	5,000	5,000	5,000	5,000	5,000	60,000
	Lab Equipment and Chem. Cost	3,500	3,500	3,500	3,500	3,500	3,500	42,000
	Out Lab Cost	1,000	1,000	1,000	1,000	1,000	1,000	8,000
	Assays / Appraise Cost	**-**	**-**	**-**	**-**	**-**	**-**	-
	technicians	6,000	6,000	6,000	6,000	6,000	6,000	48,000
Staff	**Shea Staff (paid by GCG booked local)**							
	Management	12,500	12,500	12,500	12,500	12,500	12,500	112,500
	Security	3,000	3,000	3,000	3,000	3,000	3,000	28,000
	Safety supervisor	7,000	7,000	7,000	7,000	7,000	7,000	63,000
	Millwright	45,000	45,000	45,000	45,000	45,000	45,000	450,000
	maintenance staff							
	Housing Rent	45,000	45,000	45,000	45,000	45,000	45,000	450,000
	Smelting and Transportation							
	Armored car/ Con. Transp. cost	2,000	2,000	2,000	2,000	2,000	2,000	22,000
	Smelting cost	751,800	751,800	751,800	751,800	751,800	751,800	7,146,575
	Metal account Cost	500	500	500	500	500	500	5,500
	Net Smelter Royalties	75,180	75,180	75,180	75,180	75,180	75,180	714,658
	Production Per Month (Tons)	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**	798,500
	Metal Sales (Gross)	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	71,465,750
	Totals Monthly Income	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	70,751,093
	Totals Monthly EXP	1,056,000	1,061,000	1,051,500	1,027,900	1,031,900	1,032,900	15,103,237

Property (Tonopah Mill)

Shea Mining & milling, LLC

Budget (Draft)

Shea Mining & milling, LLC

Projection

Mill site Budget (Draft)

Type	month	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11
Acqu	**Acquisition cost**							
	Payments	-	-	-	-	-	-	-
Land Fees ar	**Land Fees and permitting**							
	Land Taxes	-	-	-	-	-	-	-
	Permitting consulting fees	-	-		5,000	-	-	-
	Permit / land Bond fees	-	-	-	-	25,000	-	-
	Property Insurance	4,750	4,750	4,750	4,750	4,750	4,750	4,750
Development	**Development improvement**							
	Milling equipment (Acquisition, No movable)	20,000	20,000	20,000	20,000	20,000	20,000	20,000
	Spare Parts	4,000	4,000	4,000	4,000	4,000	4,000	4,000
	Mill Site Preparation Rock	-	-	-	5,000	-	-	-
	Mill building and Road ways Exp	-	-	5,000	-	-	-	-
	Geology exploration (drilling)	-	-	-	-	-	20,000	-
	Other Fixed Assets	-	-	-	-	-	-	-
	Tailings Management	7,500	7,500	7,500	7,500	7,500	7,500	7,500
	Renovation Costs							
	Supervision Steve Rogers	-	-	-	-	-	-	-
	John Bassill	-	-	4,000	-	-	-	-
	Skilled Millwright Labor	-	-	-	-	-	-	-
	Skilled Electrical Labor	-	-	-	-	-	-	-
	Prison Labor							
	Petty cash						5,000	
	Renovation Materials Costs							
	Steel and Grading	-	-	-	-	1,200	-	-
	Pipe and Fittings	400	400	400	400	400	400	400
	Electric Parts	300	300	300	300	300	300	300
	Paint	-	-	-	-	-	-	-
	Consumables	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Construction Materials	400	400	400	400	400	400	400
	Fence Materials and Gates	-	-	-	-	-	600	-
	Signs	-	-	-	200	-	-	-
	Security	-	-	-	-	-	-	-
Rolling Stock	**Rolling Stock**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Trucks / Cars (road use)	-	-	-	-	-	-	-
	Rental Dump Trucks (mine use)	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Rental Land Movers (EXP..Front end loader)	6,800	6,800	6,800	6,800	6,800	6,800	6,800
	Off Road Quad (Mine Use)	-	-	-	-	-	-	-
	Rental Forklift	2,800	2,800	2,800	2,800	2,800	2,800	2,800
	Rental Crane	4,200	4,200	4,200	4,200	4,200	4,200	4,200
	Bobcat	1,200	1,200	1,200	1,200	1,200	1,200	1,200
	Rental Man lift	4,200	4,200	4,200	4,200	4,200	4,200	4,200
	Rental Generator	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	Welders	-	-	-	-	-	-	-
	Small tool Rental	900	900	900	900	900	900	900
	Rental Office Trailer	-	-	-	-	-	-	-
Power and	**Power and Water**							
	Electric Cost	75,000	75,000	75,000	75,000	75,000	75,000	75,000
	Fuel Cost (diesel)	3,500	3,500	3,500	3,500	3,500	3,500	3,500
	Water Cost Rebuild pumps	2,000	2,000	2,000	2,000	2,000	2,000	2,000
	Per Ton Ore Fee delivered	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Laboratory and	**Laboratory and Q.A.**							
	Lab Lease Cost	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	Lab Equipment and Chem. Cost	3,500	3,500	3,500	3,500	3,500	3,500	3,500
	Out Lab Cost	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	Assays / Appraise Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	technicians	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Staff	**Shea Staff (paid by GCG booked local)**							
	Management	12,500	12,500	12,500	12,500	12,500	12,500	12,500
	Security	3,000	3,000	3,000	3,000	3,000	3,000	3,000
	Safety supervisor	7,000	7,000	7,000	7,000	7,000	7,000	7,000
	Millwright	45,000	45,000	47,000	47,000	47,000	47,000	47,000
	maintenance staff							
	Housing Rent	45,000	45,000	47,000	47,000	47,000	47,000	47,000
	Smelting and Transportation							
	Armored car/ Con. Transp. cost	2,000	2,000	2,000	2,000	2,000	2,000	2,000
	Smelting cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Metal account Cost	500	500	500	500	500	500	500
	Net Smelter Royalties	75,180	75,180	75,180	75,180	75,180	75,180	75,180
	Production Per Month (Tons)	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**
	Metal Sales (Gross)	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000
	Totals Monthly Income	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**
	Totals Monthly EXP	274,950	274,950	287,950	289,150	305,150	304,550	278,950

Property (Tonopah Mill)

Shea Mining & milling, LLC

Budget (Draft)

Type	month	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Totals End 2011	Jan-12
Acqu	**Acquisition cost**							
	Payments	-	-	-	-	-	-	-
Land Fees ar	**Land Fees and permitting**							
	Land Taxes	-	-	-	-	6,800	6,800	-
	Permitting consulting fees	-	-	-	-	-	5,000	5,000
	Permit / land Bond fees	-	-	-	-	-	25,000	-
	Property Insurance	4,750	4,750	4,750	4,750	4,750	57,000	5,000
Development	**Development improvement**							
	Milling equipment (Acquisition, No movable)	20,000	20,000	20,000	20,000	20,000	240,000	20,000
	Spare Parts	4,000	4,000	4,000	4,000	4,000	48,000	4,000
	Mill Site Preparation Rock	-	-	5,000	-	-	10,000	-
	Mill building and Road ways Exp	-	-	-	-	-	5,000	-
	Geology exploration (drilling)	-	-	-	-	-	20,000	-
	Other Fixed Assets	-	-	-	-	-	-	-
	Tailings Management	7,500	7,500	7,500	7,500	7,500	90,000	7,500
	Renovation Costs							
	Supervision Steve Rogers	-	-	-	-	-	-	-
	John Bassill	-	-	-	-	-	4,000	-
	Skilled Millwright Labor	-	-	-	-	-	-	-
	Skilled Electrical Labor	-	-	-	-	-	-	-
	Prison Labor							
	Petty cash						5,000	
	Renovation Materials Costs							
	Steel and Grading	-	-	-	-	-	1,200	-
	Pipe and Fittings	400	400	400	400	400	4,800	400
	Electric Parts	300	300	300	300	300	3,600	300
	Paint	-	-	-	-	-	-	-
	Consumables	2,500	2,500	2,500	2,500	2,500	30,000	2,500
	Construction Materials	400	400	400	400	400	4,800	400
	Fence Materials and Gates	-	-	-	-	-	600	-
	Signs	-	-	-	200	-	400	-
	Security	-	-	-	-	-	-	-
Rolling Stock	**Rolling Stock**	-	-	-	-	-	-	-
	Trucks / Cars (road use)	-	-	-	-	-	-	-
	Rental Dump Trucks (mine use)	2,500	2,500	2,500	2,500	2,500	30,000	2,500
	Rental Land Movers (EXP..Front end loader)	6,800	6,800	6,800	6,800	6,800	81,600	6,800
	Off Road Quad (Mine Use)	-	-	-	-	-	-	-
	Rental Forklift	2,800	2,800	2,800	2,800	2,800	33,600	2,800
	Rental Crane	4,200	4,200	4,200	4,200	4,200	50,400	4,200
	Bobcat	1,200	1,200	1,200	1,200	1,200	14,400	1,200
	Rental Man lift	4,200	4,200	4,200	4,200	4,200	50,400	4,200
	Rental Generator	1,500	1,500	1,500	1,500	1,500	18,000	1,500
	Welders	-	-	-	-	-	-	-
	Small tool Rental	900	900	900	900	900	10,800	900
	Rental Office Trailer	-	-	-	-	-	-	-
Power and	**Power and Water**							
	Electric Cost	75,000	75,000	75,000	75,000	75,000	900,000	75,000
	Fuel Cost (diesel)	3,500	3,500	3,500	3,500	3,500	42,000	3,500
	Water Cost Rebuild pumps	2,000	2,000	2,000	2,000	2,000	24,000	2,000
	Per Ton Ore Fee delivered	-	-	-	-	-	-	-
Laboratory and	**Laboratory and Q.A.**							
	Lab Lease Cost	5,000	5,000	5,000	5,000	5,000	60,000	5,000
	Lab Equipment and Chem. Cost	3,500	3,500	3,500	3,500	3,500	42,000	3,500
	Out Lab Cost	1,000	1,000	1,000	1,000	1,000	12,000	1,000
	Assays / Appraise Cost	-	-	-	-	-	-	-
	technicians	6,000	6,000	6,000	6,000	6,000	72,000	6,000
Staff	**Shea Staff (paid by GCG booked local)**							
	Management	12,500	12,500	12,500	12,500	12,500	150,000	12,500
	Security	3,000	3,000	3,000	3,000	3,000	36,000	3,000
	Safety supervisor	7,000	7,000	7,000	7,000	7,000	84,000	7,000
	Millwright	47,000	47,000	47,000	47,000	47,000	560,000	47,000
	maintenance staff							
	Housing Rent	47,000	47,000	47,000	47,000	47,000	560,000	47,000
	Smelting and Transportation							
	Armored car/ Con. Transp. cost	2,000	2,000	2,000	2,000	2,000	24,000	2,000
	Smelting cost	-	-	-	-	-	-	-
	Metal account Cost	500	500	500	500	500	6,000	500
	Net Smelter Royalties	75,180	75,180	75,180	75,180	75,180	902,160	75,180
	Production Per Month (Tons)	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**	1,008,000	**84,000**
	Metal Sales (Gross)	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	90,216,000	7,518,000
	Totals Monthly Income	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	89,313,840	**7,442,820**
	Totals Monthly EXP	278,950	278,950	283,950	279,150	285,750	4,324,560	284,200

Property (Tonopah Mill)

Shea Mining & milling, LLC

Budget (Draft)

Shea Mining & milling, LLC

Projection

Mill site Budget (Draft)

Type	month	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12
Acqu	**Acquisition cost**							
	Payments	-	-	-	-	-	-	-
Land Fees ar	**Land Fees and permitting**							
	Land Taxes	-	-	-	-	-	-	-
	Permitting consulting fees	-	-	-	-	-	-	-
	Permit / land Bond fees	25,000	-	-	-	-	-	-
	Property Insurance	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Development	**Development improvement**							
	Milling equipment (Acquisition, No movable)	20,000	20,000	20,000	20,000	20,000	20,000	20,000
	Spare Parts	4,000	4,000	4,000	4,000	4,000	4,000	4,000
	Mill Site Preparation Rock	-	5,000	-	-	-	-	-
	Mill building and Road ways Exp	-	-	-	10,000	-	-	-
	Geology exploration (drilling)	-	-	-	-	-	-	20,000
	Other Fixed Assets	-	-	-	-	-	-	-
	Tailings Management	7,500	7,500	7,500	7,500	7,500	7,500	7,500
	Renovation Costs							
	Supervision Steve Rogers	-	-	-	-	-	-	-
	John Bassill	-	-	-	4,000	-	-	-
	Skilled Millwright Labor	-	-	-	-	-	-	-
	Skilled Electrical Labor	-	-	-	-	-	-	-
	Prison Labor							
	Petty cash			5,000				
	Renovation Materials Costs							
	Steel and Grading	1,200	-	-	-	-	-	-
	Pipe and Fittings	400	400	400	400	400	400	400
	Electric Parts	300	300	300	300	300	300	300
	Paint	-	-	-	-	-	-	-
	Consumables	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Construction Materials	400	400	400	400	400	400	400
	Fence Materials and Gates	-	-	-	600	-	-	-
	Signs	-	-	200	-	-	-	-
	Security	-	-	-	-	-	-	-
Rolling Stock	**Rolling Stock**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Trucks / Cars (road use)	-	-	-	-	-	-	-
	Rental Dump Trucks (mine use)	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Rental Land Movers (EXP..Front end loader)	6,800	6,800	6,800	6,800	6,800	6,800	6,800
	Off Road Quad (Mine Use)	-	-	-	-	-	-	-
	Rental Forklift	2,800	2,800	2,800	2,800	2,800	2,800	2,800
	Rental Crane	4,200	4,200	4,200	4,200	4,200	4,200	4,200
	Bobcat	1,200	1,200	1,200	1,200	1,200	1,200	1,200
	Rental Man lift	4,200	4,200	4,200	4,200	4,200	4,200	4,200
	Rental Generator	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	Welders	-	-	-	-	-	-	-
	Small tool Rental	900	900	900	900	900	900	900
	Rental Office Trailer	-	-	-	-	-	-	-
Power and	**Power and Water**							
	Electric Cost	75,000	75,000	75,000	75,000	75,000	75,000	75,000
	Fuel Cost (diesel)	3,500	3,500	3,500	3,500	3,500	3,500	3,500
	Water Cost Rebuild pumps	2,000	2,000	2,000	2,000	2,000	2,000	2,000
	Per Ton Ore Fee delivered	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Laboratory and	**Laboratory and Q.A.**							
	Lab Lease Cost	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	Lab Equipment and Chem. Cost	3,500	3,500	3,500	3,500	3,500	3,500	3,500
	Out Lab Cost	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	Assays / Appraise Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	technicians	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Staff	**Shea Staff (paid by GCG booked local)**							
	Management	12,500	12,500	12,500	12,500	12,500	12,500	12,500
	Security	3,000	3,000	3,000	3,000	3,000	3,000	3,000
	Safety supervisor	7,000	7,000	7,000	7,000	7,000	7,000	7,000
	Millwright	47,000	49,000	49,000	49,000	49,000	49,000	49,000
	maintenance staff							
	Housing Rent	47,000	49,000	**-**	**-**	**-**	**-**	**-**
	Smelting and Transportation							
	Armored car/ Con. Transp. cost	2,000	2,000	2,000	2,000	2,000	2,000	2,000
	Smelting cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Metal account Cost	500	500	500	500	500	500	500
	Net Smelter Royalties	75,180	75,180	75,180	75,180	75,180	75,180	75,180
	Production Per Month (Tons)	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**	**84,000**
	Metal Sales (Gross)	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000	7,518,000
	Totals Monthly Income	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**
	Totals Monthly EXP	305,400	288,200	239,400	248,800	234,200	234,200	254,200

Property (Tonopah Mill) Shea Mining & milling, LLC

Shea Mining & milling, LLC *Projection*

Budget (Draft) **Mill site Budget (Draft)** Totals

Type	month	Sep-12	Oct-12	Nov-12	Dec-12	End 2012
Acqu	**Acquisition cost**					
	Payments	-	-	-	-	-
Land Fees ar	**Land Fees and permitting**					
	Land Taxes	-	-	-	7,200	7,200
	Permitting consulting fees	-	-	-	-	5,000
	Permit / land Bond fees	-	-	-	-	25,000
	Property Insurance	5,000	5,000	5,000	5,000	60,000
Development	**Development improvement**					
	Milling equipment (Acquisition, No movable)	20,000	20,000	20,000	20,000	240,000
	Spare Parts	4,000	4,000	4,000	4,000	48,000
	Mill Site Preparation Rock	5,000	-	-	-	10,000
	Mill building and Road ways Exp	-	-	-	-	10,000
	Geology exploration (drilling)	-	-	-	-	20,000
	Other Fixed Assets	-	-	-	-	-
	Tailings Management	7,500	7,500	7,500	7,500	90,000
	Renovation Costs					
	Supervision Steve Rogers	-	-	-	-	-
	John Bassill	-	-	-	-	4,000
	Skilled Millwright Labor	-	-	-	-	-
	Skilled Electrical Labor	-	-	-	-	-
	Prison Labor					
	Petty cash			5,000		10,000
	Renovation Materials Costs					
	Steel and Grading	-	-	-	-	1,200
	Pipe and Fittings	400	400	400	400	4,800
	Electric Parts	300	300	300	300	3,600
	Paint	-	-	-	-	-
	Consumables	2,500	2,500	2,500	2,500	30,000
	Construction Materials	400	400	400	400	4,800
	Fence Materials and Gates	-	-	-	-	600
	Signs	-	-	200	-	400
	Security	-	-	-	-	-
Rolling Stock	**Rolling Stock**	-	-	-	-	-
	Trucks / Cars (road use)	-	-	-	-	-
	Rental Dump Trucks (mine use)	2,500	2,500	2,500	2,500	30,000
	Rental Land Movers (EXP..Front end loader)	6,800	6,800	6,800	6,800	81,600
	Off Road Quad (Mine Use)	-	-	-	-	-
	Rental Forklift	2,800	2,800	2,800	2,800	33,600
	Rental Crane	4,200	4,200	4,200	4,200	50,400
	Bobcat	1,200	1,200	1,200	1,200	14,400
	Rental Man lift	4,200	4,200	4,200	4,200	50,400
	Rental Generator	1,500	1,500	1,500	1,500	18,000
	Welders	-	-	-	-	-
	Small tool Rental	900	900	900	900	10,800
	Rental Office Trailer	-	-	-	-	-
Power and	**Power and Water**					
	Electric Cost	75,000	75,000	75,000	75,000	900,000
	Fuel Cost (diesel)	3,500	3,500	3,500	3,500	42,000
	Water Cost Rebuild pumps	2,000	2,000	2,000	2,000	24,000
	Per Ton Ore Fee delivered	-	-	-	-	-
Laboratory and	**Laboratory and Q.A.**					
	Lab Lease Cost	5,000	5,000	5,000	5,000	60,000
	Lab Equipment and Chem. Cost	3,500	3,500	3,500	3,500	42,000
	Out Lab Cost	1,000	1,000	1,000	1,000	12,000
	Assays / Appraise Cost	-	-	-	-	-
	technicians	6,000	6,000	6,000	6,000	72,000
Staff	**Shea Staff (paid by GCG booked local)**					
	Management	12,500	12,500	12,500	12,500	150,000
	Security	3,000	3,000	3,000	3,000	36,000
	Safety supervisor	7,000	7,000	7,000	7,000	84,000
	Millwright	49,000	49,000	49,000	49,000	584,000
	maintenance staff					
	Housing Rent	-	-	-	-	143,000
	Smelting and Transportation					
	Armored car/ Con. Transp. cost	2,000	2,000	2,000	2,000	24,000
	Smelting cost	-	-	-	-	-
	Metal account Cost	500	500	500	500	6,000
	Net Smelter Royalties	75,180	75,180	75,180	75,180	902,160
	Production Per Month (Tons)	**84,000**	**84,000**	**84,000**	**84,000**	1,008,000
	Metal Sales (Gross)	7,518,000	7,518,000	7,518,000	7,518,000	90,216,000
	Totals Monthly Income	**7,442,820**	**7,442,820**	**7,442,820**	**7,442,820**	89,313,840
	Totals Monthly EXP	239,200	234,200	239,400	241,400	3,944,960

First
Capitol
Auction Inc.

Commercial Liquidators & Appraisers

ESMERALDA 1500 TPD REDUCTION PLANT

SHEA MINING AND MILLING LLC
TONOPAH NEVADA
APPRAISAL REPORT

PREPARED FOR

ARCANUM COMMODITIES GROUP LLC
192 SANDY BUNKER LANE
LAS VEGAS NV, 89148

PREPARED BY

DALE FERDINANDI
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September 8, 2009

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First Capitol Auction Inc.

Commercial Liquidators & Appraisers

SUMMARY

First Capitol Auctioneers has been retained to provide a Fair Market Value In Use Appraisal for Shea Mining and Milling LLC of the 1500 TPD Reduction Mill Facility, located in the County of Esmeralda, State of Nevada. The property is located approximately 13 miles North of Tonopah Nevada on the west side of highway 95. The appraisal was done in accordance with The Uniform Standards of Professional Appraisal Practice, (USPAP) and is a summary appraisal. The facility was physically inspected on August 23-24, 2009. The mill facility was built during 1981 and 1982. Late in 1982 the facility was closed due to poor economic conditions. The facility has sat idle since that time.
Shea Mining and Milling intends on using the Mill to process the tailings ponds that are located on the approximately 1100 acres the facility sits on, as well as ore from properties in the surrounding area.

DEFINITION OF VALUE

First Capitol Auctioneers used a cost approach for the Fair Market Value In Use Appraisal. Replacement cost New, including installation and permits, less physical depreciation, less any monies needed to bring the plant up to Ideal Standards.

EFFECTIVE DATE OF APPRAISAL

The effective date of the appraisal is **September 8, 2009**

ASSUMPTIONS

The property will continue to be used for the purpose for which it was designed and built or to which it is currently adapted. The mill will be retained at its present location for continued operation.
The property fulfills an economic demand for the utility it provides.
The property has remaining useful life. The continuation of the existing use is practical.
An alternative use would not be feasible.
The tailings pond has an economic value that makes sense for the tailings to be processed.
There are significant tailings on this site and properties in the area that make a mill economically viable.
The current plant has existing permits in place.
An abundant supply of water is available.
Gold (AU) is currently approximately $950/oz. Silver (AG) is approximately $15/oz.

DISCLAIMER

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Estimates of the mineral resource and grade level of ore that is available to be processed from the tailings was not analyzed by First Capitol Auctioneers, nor is First Capitol qualified to do so.

SOURCES OF INFORMATION

- ON 19 SEPTEMBER 2006, H.C. OSBORNE AND ASSOCIATES ISSUED A TECHNICAL REVIEW OF THE AVINO SILVER AND GOLD MINES LTD AVINO MINE
- ON 17 APRIL 2009, KD ENGINEERING ISSUED A MILL TECHNICAL REPORT OF THE MULATOS PROJECT
- ON JUNE 2007, MINE DEVELOPMENT ISSUED A TECHNICAL REPORT ON VISTA GOLD'S PAREDONES AMARILLOS PROJECT
- ON JUNE 2009, TETRA TECH ISSUED A TECHNICAL REPORT ON VISTSA GOLDS MT TODD GOLD PROJECT
- ON APRIL 2008 SRK CONSULTING ISSUED A TECHNICAL REPORT ON APOLLO GOLD'S BLACK FOX PROJECT
- AAMCOR LLC, WEST VALLEY UTAH- USED EQUIPMENT INVENTORY
- SAVONA EQUIPMENT, SAVONA BC, - USED EQUIPMENT INVENTORY
- M&E EQUIPMENT SAN FRANCISCO CA, USED EQUIPMENT
- MACHINERYTRADER.COM
- NELSON MACHINERY VANCOUVER BC, USED EQUIPMENT
- METSO MINERALS INDUSTRIES (NORDBERG) PERRIS CA

MILL- REPLACEMENT COST NEW VALUATION

The cost to construct a New 1500 TPD Reduction Mill, including installation is $24,925,000. Table 1 outlines the cost schedule.

TABLE 1

SUMMARY REDUCTION MILL PROCESS PLANT CAPITAL COST NEW

DESRIPTION	TOTAL COST US$
DIRECT COSTS	
GRINDING	3,177,000
THICKENING	1,940,000
GRAVITY CIRCUIT (NOT INCLUDED IN TOTAL COSTS) *	1,625,000
REAGENT & PROCESS WATER	814,000
DRY TAILINGS SYSTEM (NOT INCLUDED IN TOTAL COSTS) *	2,650,000
ELECTRICAL	865,000
WATER- DRILLING, PUMPS, PIPELINE	1,135,000
CONSTRUCTION- SITE DEVELOPMENT, CONCRETE, STEEL	7,650,000
CRANES, EQUIPMENT COST, FREIGHT	265,000
TOTAL DIRECT COSTS	15,846,000
INDIRECT COSTS	
ENGINEERING	3,430,000
PERMITS/SURVEY VERIFICATION	625,000
CONSTRUCTION MANAGEMENT	918,000
SPARE PARTS	485,000
TOTAL INDIRECT COSTS	5,458,000
CONTINGENCY – 17%	3,621,000
TOTAL COST	24,925,000

* GRAVITY CIRCUIT AND DRY TAILINGS ARE NOT INCLUDED IN TOTAL COSTS
DIRECT LABOR COSTS WERE ESTIMATED TO BE 25.00 PER HOUR, WHICH IS BASE ON SIMILAR JOB EXPENSES AND ESTIMATES.
CONCRETE, STRUCTURAL STEEL, AND UNIT COSTS WERE ESTIMATED BASE ON PREVIOUS SIMILAR JOB EXPENSES AND ESTIMATES
ELECTRICAL COSTS WERE ESTIMATED BASED ON PREVIOUS SIMILAR JOBS AND USE OF THE

RS MEANS ELECTRICAL COST DATA CATALOG

MILL REHAB SCHEDULE AND COSTS

The mill could be brought into operation in as little as 3 months. The cost to bring the mill up to ideal standards would be $1,284,000. Table 2 outlines the cost schedule.

TABLE 2

ITEM	TOTAL COST US$
ASSAY LAB	190,000
BALL MILL LINERS	110,000
OSHA REQUIREMENTS	60,000
ENGINEERING & PERMIT RENEWAL	60,000
ELECTRICAL	97,000
COMMUNICATION EQUIPMENT	85,000
MAINTENANCE SUPPLIES	50,000
REAGENTS	35,000
SPARE PARTS	150,000
OFFICES AND BUILDINGS	130,000
GRINDING STEEL	17,000
LABOR	85,000
WATER	50,000
FIRST FILLS (INCLUDING TRAINING & CONSULTING, CONSUMABLES)	165,000
TOTAL	1,284,000

CONCLUSION

The cost to construct a new plant is $24,925,000. The remaining life of the existing plant is 37.5%. It will cost $1,284,000 to return the existing plant into an ideal operating condition. Thus, the value of the current plant as it sits is **$8,062,875**

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CERTIFICATION

I certify that, to the best of my knowledge and belief: the statements of fact contained in this report are true and correct. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment. My engagement in this assignment was not contingent upon developing or reporting predetermined results. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice. I have made a personal inspection of the property that is the subject of this report. No one provided significant personal property appraisal assistance to the person signing this certification.

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DEFINITIONS

FAIR MARKET VALUE IN USE

Fair Market Value in Continued Use is the estimated amount expressed in terms of money that may reasonably be expected for a property in exchange between a willing buyer and a willing seller with equity to both, neither being under any compulsion to buy or sell and both being fully aware of all relevant facts, and including installation and assuming that the earnings support the value reported. The
Value expressed in terms of money is the Replacement cost
New, including installation and all relative permitting, less depreciation, less any monies needed to bring plant up to
Ideal operating standards

SUMMARY APPRAISAL

The Summary Appraisal Report contains a summary of all information significant to the solution of the appraisal problem.

COST APPROACH

The cost Approach in appraisal analyses is based on the proposition that an informed purchaser would pay no more for an asset than the cost of producing a substitute with the same utility as the subject asset. The Cost Approach assumes the maximum value of an asset to a knowledgeable buyer to be the amount currently required to construct a new asset of equal utility. When the asset is not new, the current cost new must be adjusted for all forms of depreciation attributable to the asset at the date of appraisal. The starting point or basis of the Cost Approach is Reproduction Cost New, Replacement Cost, New, or a combination of both.

REPLACEMENT COST, NEW

The current cost, new, of a similar new property having the nearest equivalent utility as the property being appraised.

SHEDULE 1
TONOPAH EQUIPMENT LIST

TAG NUMBER	EQUIPMENT	DESCRIPTION
21LOOI	MCC #1	480 V MOTOR CONTROL CENTER #1, INDOOR
21L002	MCC #2	480 V MOTOR CONTROL CENTER #2, INDOOR
21L003	TRANSFORMER	WEAVER 2,400/480 V SECONDARY TRANSFORMER, 1500 KVA OUTDOOR, PAD MOUNTED, S/N 20241
21L004	PANEL	480 V DISTRIBUTION PANEL DP-1 INDOOR
21L005	SWITCHGEAR	LOW VOLTAGE METAL ENCLOSED SWITCHGEAR, 1600 AMP INCOMING BREAKERS 2 - 600 AMP FEEDER BREAKERS - INDOOR
21L006	TRANSFORMER	480 V TO 240 V, 3 PHASE, 45 KVA, DRY TYPE
2IL007	MILL BLDG. LIGHTING TRANSFORMER	480 V TO 120/240 V, 10 KVA
N/A	GRIZZLY HOPPER	
N/A	BELT FEED CONVEYOR	21 FT X 30”
N/A	TRUSS FEED CONVEYOR	112 FT X 30”
N/A	SURGE BIN	60 TON
N/A	BELT FEEDER	19 FT X 30”
	GRINDING BUILDING	66 FT L X 45 FT W X 45 FT H
21G001	BALL MILL	ALLIS CHALMERS 12 FT X 16 FT BALL MILL, 1250 HP,

LINED

21L008	BALL MILL CONTROLLER	2,300 V, 60 HZ, 1250 HP BALL MILL MOTOR CONTROLLER
21L009	BALL MILL STARTING CAPACITOR & CONTROL	SWITCHING CAPACITOR 3,600 KVAR, 2,300 V, 60 HZ AND INTERLOCK IN NEMA 12 ENCLOSURE
21L010	ANNUNCIATOR	SOLID STATE, 115 V, 60 HZ RIS AN-11OO MODEL 18-1
21l01l	DISTRIBUTION PANEL	240 V, 3 PH, 60 HZ, DISTRIBUTION PANEL DP-2
211012	LIGHTING PANEL	240 V TO 120 V, 1 PH, 60 HZ, LIGHTING PANEL LP-l
31Y001	SAMPLER	WET, TYPE "B" CUTTER, 36" TRAVEL, GEARY-JENNINGS
31YM001	SAMPLER MOTOR	1800 RPM, 115 V
31T001	SO_2 PRETREATMENT TANK NO. 1	14,400 GALS, LINED W/HARD NATURAL RUBBER 14 FT DIA. x 14 FT HIGH, COVERED
31A001	SO_2 PRETREATMENT TANK NO. 1 AGITATOR	LIGHTNIN 75 Q 7.5 92" DIA. TURBINE, 20 RPM, BUTYL RUBBER COVERED
31AMOOI	AGITATOR MOTOR	1200 RPM, 230/460 V, TEFC, 3 PH
31T002	SO_2 PRETREATMENT TANK NO. 2	14,400 GALS, LINED W/HARD NATURAL RUBBER 14 FT DIA. x 14 FT HIGH, COVERED
31A002	SO_2 PRETREATMENT TANK	LIGHTNIN 75 Q 7.5 92" DIA. TURBINE,

	NO. 2 AGITATOR	20 RPM, BUTYL RUBBER COVERED
3IAMOO2	AGITATOR MOTOR	1200 RPM, 230/460 V, TEFC, 3 PH
31T003	LIME NEUTRALIZATION TANK	5,500 GALS, LINED W/HARD NATURAL RUBBER 10 FTDIA. X 10 FT HIGH, COVERED
31A003	LIME NEUTRALIZATION TANK AGITATOR	BUTYL RUBBER COVERED, GALIGHER 30" DIA. PROP., 115 RPM
31AM003	AGITATOR MOTOR	1200 RPM, 460 V, TEFC, 3 PH
31P001A GALIGHER	PACHUCA FEED PUMP	360 GPM, 46 FT TDH, S.G. 1.395, RUBBER LINED 4 x 6
31PM001A	PACHUCA FEED PUMP MOTOR	900 RPM, TEFC, 230/460 V, 3 PH, LOUIS ALLIS 286 T
31T006	DISCHARGE SUMP	NEUTRALIZED LIME, MILD STEEL, 1200 GALS
31XMOOIA	CRUBBER FAN MOTOR	3,600 RPM, 230/460 V, TEFC, 3 PH
31XMOOIB	SCRUBBER PUMP MOTOR	3,600 RPM, 230/460 V, 3 PH, TEFC
31L001	ANNUNCIATOR	SOLID STATE, 115 V, 60 HZ RIS AN-II00 MODEL 12-1
31T007	SAMPLER FEED BOX	
31T008	SAMPLER DISCHARGE SUMP	
31P031	SULPHUR UNLOADING PUMP	60 GPM OF MOLTEN SULPHUR AT 285°F, 155 FT TDW STEAM JACKETED, CENTRIFUGAL, DEAN BROTHERS
		1 X 1-1/2 X 8

31PM031	PUMP MOTOR	TEFC, 230/460 V, 3 PH, 3500 RPM
31T031	SULPHUR STORAGE TANK REMOVABLE	12 FT DIA X 16 FT H., MILD STEEL ¼", CAP. 100 TONS OF SULPHUR W/INSULATION, (3) STEAM COILS AND (2) JACKETED VENTS
31P032	SULPHUR FEED PUMP	ROTARY GEAR TYPE, VARIABLE SPEED, SCR DRIVE 316 S.S., ECO GARCHEM
31PM032	PUMP MOTOR	TEFC, 120 V, 1 PH, 90-1750 RPM
31F032	SULPHUR BURNER	SKID MOUNTED, 7.5 T/D SULPHUR
31C032	ATOMIZING AIR COMPRESSOR CONTROL	100 SCFM @ 65 PSIG, TANK MOUNTED W/DUAL
31CM032	COMPRESSOR MOTOR	TEFC
31C033	COMBUSTION AIR BLOWER SPEED DRIVE, W/INLET AND DISCHARGE FILTER SILENCERS	950 INLET CFM AT 14 PSIG OUTPUT CONSTANT
31CM033	BLOWER MOTOR	TEFC, 460 V, 3 PH, 3500 RPM
31E031	SPRAY QUENCH TOWER	PRIMARY COOLING TOWER, 15" DIA X 6' H.
31T035	WEIR BOX	
31P033	QUENCH TOWER DRAIN PUMP	CENTRIF. 1-1/4 X 1 X 4, 20 GPM, 65 FT TDH CAST IRON, WORTHINGTON D-520
31PM033	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC
31T032	EMERGENCY WATER	3 FT-9" DIA X 6 FT-9" HIGH, 550 GALS

	SUPPLY TANK	PRESSURIZED WITH COMPRESSED AIR TO 50 PSIG
31T033	CAUSTIC HOLDING TANK	5 FT-7" DIA X 6 FT-6", OPEN TOP, MILD STEEL, 1000 GALS NET CAP, 9" FREEBOARD
31P034	CAUSTIC FEED PUMP	CENTRIFUGAL, 1-1/4 X 1 X 5, 5 GPM, 22 FT TDH CAST IRON, WORTHINGTON D-520
31PM034	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH, TEFC
31F031	Auxiliary Boiler	PACKAGED TYPE, SKID MOUNTED, 130 LBS/HR, 125 PSIG (OPERATING) BRYAN D 250 S 150 W/SEPARATOR
31T034	MAKE-UP WATER TANK	BRYAN MODEL XXA-21 FEED SYSTEM
31P035	BOILER FEED WATER PUMP	
31PM035	PUMP MOTOR	115/230 V, 1 PH
31J031	$S0_2$ ANALYZER	HORIBA SERIES 800, MODEL ESDA 813
31C034	DRAFT CONTROL FAN	950 CFM, 10.7" S. P., 2790 RPM, HEIL MODEL HCB, SERIES A, SIZE 8 SOLID PLASTIC FAN
31CM034	FAN MOTOR	1750 RPM, 460/3/60, TEFC
31J032	INSTRUMENT AIR DRYER	COMPRESSED AIR DRYER, 175 PSIG, 10 SCFM, 120 V, HANKINSON NO. 8010 WITH OIL REMOVAL
31X031	LIME SCRUBBER #1	SPRAY TYPE, 18" DIA X 10 FT H, FRP
31P037	SCRUBBER PUMP #1	CENTRIF., 1-1/4 X 1 X 4, 30 GPM, 45 FT TDH,

		CAST IRON, WORTHINGTON D-520
31PM037	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC
31X032	LIME SCRUBBER #2	SPRAY TYPE, 18" DIA X 10' H, FRP
31P038	SCRUBBER PUMP #2	CENTRIF., 1-1/4 X 1 X 4, 30 GPM, 45 FT TDH, CAST IRON, WORTHINGTON D-520
31PM038	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC
31T036	FUEL STORAGE TANK	FOR NO. 2 DIESEL FUEL, BURRIED
31P036	FUEL PUMP	NO. 2 DIESEL FUEL PUMP, VIKING MODEL FH32D 3 GPM, 154 FT TDH
31PM036	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH, TEFC
31B031	RAIN SHED	FOR SULPHUR BURNER, W/PLATFORM AND LADDER
31L032	TRANSFORMER	3 KVA, DRY TYPE, INDOOR, 480 V TO 120/240 V, 1 PH, 60 HZ FOR 31F031 AUXILIARY BOILER
31L033	TRANSFER SWITCH	MANUAL, RATED 5 HP, 480 V, TWO POLE, 60 HZ, IC IN NEMA 12 ENCLOSURE FOR 31F031 AUXILIARY BOILER
31L034	FUSED DISCONNECT	2 POLE, NEMA 12 BOX, 40A FULL LOAD BREAK WITH 15A FUSES FOR 31L032 TRANSFORMER
32T001	PACHUCA TANK NO. 1	22' DIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM,

LAUNDERS MODIFIED NOZZLES)		
32T002	PACHUCA TANK NO. 2	22' DIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM,
LAUNDERS MODIFIED NOZZLES)		
32T003	PACHUCA TANK NO.3	22' BIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM,
LAUNDERS MODIFIED NOZZLES)		
32T004	PACHUCA TANK NO. 4	22' DIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM,
LAUNDERS MODIFIED NOZZLES)		
32S001A	VIBRATING SCREENS	2' WIDE X 4' LONG, 20 MESH, KOLBERG ID-244 TRASH SCREENS
32SM001A	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC, 143 T, US MOT
32C001	PROCESS AIR COMPRESSOR NO. 1	769 CFM, 51 PSI, MAX WORK. PRESSURE 3.5 BARS MAX SPEED 970 RPM, ATLAS COPCO DA 23
32CM001	COMPRESSOR MOTOR	885 RPM, 230/460 V, NEWMAN, 3 PH
32POO1	FLOOR SUMP PUMP	VERTICAL, 1.5" SIZE, RUBBER LINED, GALIGHER SRA-1100
32PM001	FLOOR SUMP PUMP MOTOR	1800 RPM, 460 V, TEFC
32C002	PROCESS AIR COMPRESSOR NO. 2	INGERSOLL-RAND X LE, 2 STAGE, 2006 CFM, 100 PSIG W/AFTERCOOLER OIL/MOISTURE SEPARATOR, SKID MOUNTED
32CM002A	COMPRESSOR MOTOR	450 RPM, 2300 V, 60 HZ, 69.5 A, SYNCHRONOUS

		(WESTINGHOUSE)
32T005	AIR RECEIVER	3 FT DIA x 8 FT HIGH
32L002	MOTOR CONTROLLER	2.4 KV, 60 HZ, FOR 350 HP COMPRESSOR
33T001	CARBON ADSORPTION TANK NO. 2	23 FT DIA. X 21 FT HIGH, OPEN TOP 56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL
33A001	CARBON ADSORPTION TANK AGITATOR	100" DIA., 30 RPM, CARBON STEEL CHEMINEER 7 HTD25
33AMOO1	AGITATOR MOTOR	900 RPM, 460 V, TEFC
33T002	CARBON ADSORPTION TANK NO. 2	23 FT DIA. X 21 FT HIGH, OPEN TOP, 56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL
33A002	CARBON ADSORPTION TANK AGITATOR	100" DIA., 30 RPM, CARBON STEEL CHEMINEER 7HTD25
33AM002	AGITATOR MOTOR	900 RPM, 460 V, TEFC
33T003	CARBON ADSORPTION TANK NO. 3	23 FT DIA. X 21 FT HIGH, OPEN TOP 56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL
33A003	CARBON ADSORPTION TANK AGITATOR	100" DIA. 30 RPM, CARBON STEEL CHEMINEER 7HTD25
33AM003	AGITATOR MOTOR	900 RPM, 460 V, TEFC
33T004	CARBON ADSORPTION	23 FT DIA. X 21 FT HIGH, OPEN TOP

	TANK NO. 4	56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL
33A004	CARBON ADSORPTION TANK AGITATOR	100" DIA., 30 RPM, CARBON STEEL CHEMINEER 7HTD25
33AM004	AGITATOR MOTOR	900 RPM, 460 V, TEFC
33YOOI	AIR LIFT ASSEMBLY	300 SCFM CAPACITY, 3" I.D. DOWNCOMER
	TANK NO. 1	8" I.D. LIFT TUBE, MILD STEEL
33Y002	AIR LIFT ASSEMBLY	300 SCFM CAPACITY, 3" I.D. DOWNCOMER
	TANK NO. 2	8" I.D. LIFT TUBE, MILD STEEL
33Y003	AIR LIFT ASSEMBLY	300 SCFM CAPACITY, 3" I.D. DOWNCOMER
	TANK NO. 3	8" I.D. LIFT TUBE, MILD STEEL
33Y004	AIR LIFT ASSEMBLY	300 SCFM CAPACITY, 3" I.D. DOWNCOMER
	TANK NO. 4	8" I.D. LIFT TUBE, MILD STEEL
335001	VIBRATING SCREEN NO. 1	4 FT WIDE X 6 FT LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE
33SM001	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC
335002	VIBRATING SCREEN NO. 2	4 FT WIDE X 6 FT LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE
33SM002	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC

335003	VIBRATING SCREEN NO. 3	4 FT WIDE X 6 FT LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE
33SM003	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC
335004	VIBRATING SCREEN NO. 4	4 FT WIDE X 6 FT LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE
33SM004	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC
335006	VIBRATING SCREEN	2 FT WIDE X 4 FT LONG, 1500-1700 RPM, KOLBERG ID – 244, CARBON WASH
33SM006	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC,
33Z001	SCREEN LUBRICATOR	LUBRICATOR FOR DERRICK SCREENS
33ZM001	LUBRICATOR MOTOR	110 V, SINGLE PHASE
33T006	LOADED CARBON BIN	550 CU/FT CAP. MILD STEEL
33H001	EDUCTOR	2" I.D. PARDEE B-100, PVC, MODEL P FLANGED
33P002	FLOOR SUMP PUMP	VERTICAL, 104 GPM, 48 FT TDH
33PM002	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC
33S007A	VIBRATING SCREEN	2 FT WIDE X 4 FT LONG SAFETY SCREEN, 30 MESH DEGRADED CARBON/TAILING SEPARATION @

100%-200		MESH, 366 GPM PULP TOTAL, KOLBERG ID-244
33SM007A	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC, 143T, US MOTOR
33Y006	TAILINGS SAMPLER	WET, TYPE "B" CUTTER, 30" TRAVEL, GEARY-JENNINGS
33YM006	TAILINGS SAMPLER MOTOR	1800 RPM, 115 V
33T007	TAILINGS DISPOSAL SUMP	MILD STEEL, 925 GALS
33P003A	TAILINGS DISPOSAL PUMP	370 GPM, CENTRIF. 4 X 6, GALIGHER 04 VRG-200
33PM003A	PUMP MOTOR	1800 RPM; 460 V, TEFC
33T010	SAMPLER FEED BOX	
335008 KOLBERG 10-244	VIBRATING SCREEN	2 FT WIDE X 4 FT LONG, 100 GPM, 5.5 TPD SOLIDS, REACTIVATED CARBON SCREEN
33SM008	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC
33T008	NITRIC ACID WASH TANK	95 CU/FT CAP. TANK, 316 STAINLESS STEEL
33T009	REACTIVATED CARBON TRANSPORT SUMP	1000 GALS, MILD STEEL
33P004	REACTIVATED CARBON TRANSPORT PUMP	CENTRIF., 55 GPM, 160 FT. TDH DUCTILE IRON, WORTHINGTON D-1022
33PM004	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC

33P005	WASH TANK FLUSH PUMP	VERTICAL SUMP PUMP, 20 GPM, 30 FT TDH 1-1/2" DUCTILE IRON, S. S. IMPELLER GALIGHER 1.5 SAA1100 X 36
33PM005	PUMP MOTOR	1800 RPM, 460 V, 3 PH, TEFC
41V001	CARBON STRIPPING VESSEL	66" I.D. X 16 FT INSIDE HEIGHT
41H001	EDUCTOR	211 I.D. PARDEE B-100, PVC, MODEL P FLANGED
410001	STRIPPED CARBON STORAGE BIN	375 CU/FT, MILD STEEL
41X001	CARBON REACTIVATION KILN	540 LBS/HOUR OF CARBON KILN 26" DIA., INDIRECT FIRED
41XM001A	KILN MAIN DRIVE MOTOR	1800 RPM, 230 V, TEFC, 3 PH.
41XG001	KILN EMERGENCY DRIVE	GASOLINE ENGINE USED FOR PROPANE, 2 HP
41XM001B	KILN SCREW FEED DRIVE MOTOR	VARIABLE SPEED, 115 V SINGLE PH.
41XM001C	KILN BLOWER MOTOR	1800 RPM, 230 V, 3 PH.
41T001	QUENCH TANK	630 GAL, 600 LBS/HR OFCARBON, STAINLESS STEEL
41H002	EDUCTOR	1-1/2" I.D. PARDEE B-100, PVC, MODEL P FLANGED
41T003	STORAGE TANK	DILUTE NITRIC ACID 2,000 GALS, 8 FT DIA. X 7 FT-6" HIGH S.S. CONSTRUCTION

41P006	BARREL PUMP	BARREL PUMP (PORTABLE), SETHCO MODEL GMC-40 6 GPM, 10 FT HEAD, CPVC-POLYPROPYLENE
41PM006	PUMP MOTOR	3400 RPM, 115 V, 60 HZ
41L001	ANNUNCIATOR	SOLID STATE, 115 V, 60 HZ RIS AN-1100, MODEL 24V-1
41P003	NITRIC ACID PUMP	20 GPM, 48 FT TDH, S.S. CONSTRUCTION, DILUTE NITRIC ACID, 1.01 S.G. WORTHINGTON D-520
41PM003	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC
41T004	WATER TANK	STRIPPED CARBON TRANSPORT WATER TANK MILD STEEL, 1500 GALS, 5 FT 7" X 10
41P005	STRIPPED CARBON TRANSPORT PUMP	CENTRIF., 125 GPM, 171 FT TDH DUCTILE IRON, WORTHINGTON D-1022
41PM005	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC
41FOO1	BOILER	EXISTING PACKAGED BOILER, 100 HP CAP. 3,350,000 BTU/HR, 300 PSI, MAX. HEATING SURFACE 155 SQ/FT NATIONAL BOAR #2848
41FM001A	BOILER BLOWER MOTOR	1800 RPM, 240 V, 3 PH
41E001	HEAT EXCHANGER FIRST STAGE	PLATE TYPE, APV MODEL SR35, SS 316

41E002	HEAT EXCHANGER SECOND STAGE	COMBINED WITH 41E001
41T007	STRIPPING VESSEL DRAIN SUMP	250 GALS, S.S., 4 FT DIA. X 4.5 FT H., COVERED
41P007	STRIPPING VESSEL DRAIN PUMP	CENTRIF. 3 X 2 X 6, 100 GPM, 27 FT. TDH DUCTILE IRON, WORTHINGTON D-1022
41PM007	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH, TEFC
51TOOI COVER	ELECTROLYTE SURGE TANK	15,000 GALS, 12 FT DIA. X 20 FT 6" H, FRP, WITH
51X001A THRU-E	ELECTROWINNING CELLS	5 CELLS, 36" X 40^{11} X 59^{11}, FRP
51T002 COVER	SPENT ELECTROLYTE HOLDING TANK	15,000 GALS, 12 FT DIA. X 20 FT-6" H., FRP WITH
51POO1	SPENT ELECTROLYTE PUMP	CENTRIF. 3 X 1-1/2 X 8, 90 GPM, 275 FT. TDH S.S., MECH. SEAL, WORTHINGTON D-1022
51PM001	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC
51T003	CATHODE DIP WASH TANK	3 FT WIDE X 3 FT HIGH X 2 FT LONG
51X002	MELTING FURNACE	EXISTING BULLION MELTING FURNACE, 33" DIA X 30" H, HAUSFELD 600
51XM002	BLOWER MOTOR	1725 RPM, 440 V, 3 PH, MELTING FURNACE BLOWER MOTOR

51Y001	SAMPLER	INTERVAL SAMPLING PUMP MODEL 7576, 115 VAC W/PUMP HEAD MASTERFLEX MODEL 7013-20
51YM001	SAMPLER MOTOR	115 V, 1 PHASE
51Y002	SAMPLER	INTERVAL SAMPLING PUMP MODEL 7576, 115 VAC W/PUMP HEAD MASTERFLEX MODEL 7013-20
51YM002	SAMPLER MOTOR	115 V, 1 PHASE
51L001	D.C. POWER SUPPLY	RECTIFIER FOR ELECTROWINNING CELLS, 500 A, 0-40 VDC.
51P002	El. CELLS FEED PUMP	CENTRIF. 2 X 1 X 10, 35 GPM, 77 FT. TDH S.S., MECH. SEAL, WORTHINGTON D-1022
51PM002	PUMP MOTOR	1800 RPM, 460 V, 3 PH, TEFC
51T004	El. CELLS DISCHARGE SUMP	85 GALS, S.S.
51P003	EL. CELLS DISCHARGE PUMP	CENTRIF. 2 X 1 X 10, 35 GPM, 103 FT. TDH S.S., MECH. SEAL, WORTHINGTON D-1022
51PM003	PUMP MOTOR	1800 RPM, 460 V, 3 PH, TEFC
51P004	ELECTROLYTE BLEED PUMP	CENTRIF. 1-1/4 X 1 X 4, 5 GPM, 55 FT TDH 5.S. MECH. SEAL, WORTHINGTON D-520
51PM004	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC
62T001	MIXING TANK	SODIUM CYANIDE, 3,000 GALS, 8 FT DIA. X 10 FT H., COVERED, MILD STEEL

62ADDI	MIXING TANK AGITATOR	SIDE MOUNT AGITATOR
62AM001	AGITATOR MOTOR	1800 RPM, 460 V, TEFC
62P001	FEED PUMP	CENTRIF., 1-1/4 X 1 X 5, 10 GPM, 1.1 S.G., SODIUM CYANIDE, WORTHINGTON D-520, C1/NORYL, 30 FT TDH
62PMOO1	PUMP MOTOR	1800 RPM, 460 V, TEFC
62T002	MIXING TANK	SODIUM HYDROXIDE, 1700 GALS, 6 FT-6" DIA. X 8 FT-6" H., OPEN TOP, MILD STEEL
62A002	MIXING TANK AGITATOR	SIDE MOUNT AGITATOR
62AM002	AGITATOR MOTOR	1800 RPM, 115 V, SINGLE PHASE TEFC
62P002	FEED PUMP	CENTRIF. 1-1/4 X 1 X 4, 5 GPM, 63 FT TDH SODIUM HYDROXIDE, WORTHINGTON D-520, C1/NORYL
62PM002	PUMP MOTOR	3600 RPM, 460 V, TEFC
62M001	HOIST	DAYTON 10 TON CAP. ELECTRIC CHAIN HOIST PLAIN TROLLEY,
62MM001	HOIST MOTOR	1725 RPM, 460 V, 3 PH.
62T003	STORAGE TANK	SODIUM CYANIDE, 6,000 GALS, 8 FT DIA. X 17 FT HIGH, COVERED MILD STEEL
62P004	METERING PUMP	SODIUM CYANIDE, 3.5 GPM MAX. J 1.1 S.G. VARIABLE SPEED

62PM004	PUMP MOTOR	1725 RPM, 3 PH G.E. 5K63AC3439
630001	DRY LIME SILO	60 TON CAP, MILD STEEL
63MOO1	VIBRATING FEEDER MODEL 50 A STYLE 26	2 TONS/HOUR, S.G. SOLIDS, ERIEZ-MAGNETICS HI-VI 115 V, 60 HZ, 4.0 AMPS
63G001	BALL MILL	3 FT X 3 FT LG.
63GMOO1	BALL MILL MOTOR	GENERAL ELECTRIC, 208/220-440 V, 3 PH 1175 RPM
63T001	MILL DISCHARGE SUMP	
63POOI	MILL DISCHARGE PUMP	CENTRIF. 1-1/4 X 1 X 4, 16 GPM, 41 FT TDH MILK OF LIME, WORTHINGTON 0-D20
63PM001	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC
63T002	STORAGE TANK	MILK OF LIME 11 FT DIA X 18 FT-6" HIGH, 12,000 GALS
63AOO1	TANK AGITATOR	LIGHTNIN - MODEL 322, 3" DIA. X 13 FT SHAFT 42" PITCHED BLADE RUBBER COVERED IMPELLER
63AMOO1	AGITATOR MOTOR	750 RPM, 480 V
63P002	DISCHARGE PUMP	CENTRIF. 1 X 1 X 4, 10 GPM, 65 FT TDH WORTHINGTON D-520 C1/NORYL MILK OF LIME, S.G. 1.115, 20% SOLIDS

63PMOO2	PUMP MOTOR	3600 RPM, 460 V, 3 PH TEFC
71POOI	PROCESS WATER PUMP	CENTRIF. 4 X 4 X 10, 240 GPM, 65 FT. TDH DUCTILE IRON, SELF PRIMING, GOULDS 3796 MT
71PMOOI	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH., TEFC
711001	PROCESS WATER TANK	40 FT. DIA. THICKENER TANK
71P002	PROCESS WATER PUMP	CENTRIF. 3 X 2 X 6, 240 GPM, 48 FT TDH. DUCTILE IRON. WORTHINGTON D-1022
71PM002	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC
72POOI	FRESH WATER PUMP	RED JACKET, 3" DIA. DISCHARGE 76 FT DEEP WELL WATER PUMP, ADJACENT TO SUBSTATION
72PMOOI	PUMP MOTOR	3600 RPM, 230 V, 3 PH
72P002	FRESH WATER PUMP	RED JACKET, 3" DIA. DISCHARGE 81 FT DEEP WELL WATER PUMP, AT OLD TAILINGS DUMP
72PM002	PUMP MOTOR	3600 RPM, 460 V, 3 PH
72T002	FRESH WATER TANK	40 FT. DIA. THICKENER
72P003	FRESH WATER PUMP	CENTRIF. 3 X 2 X 6, 250 GPM, 150 FT TDH WORTHINGTON D-1022
72PMOO3	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC
73POO1	FIRE WATER PUMP	PACIFIC MODEL 2095-1, 100 GPM, 100 PSI

73PMOO1	PUMP MOTOR	BALDOR 460 V, 3525 RPM
81L002A, 1 PH., 60 HZ	TRANSFORMERS	SUBSTATION TRANSFORMERS 55/2.3 KV 3 - 833 KVA, S/N 20192,20193,20194
81L003	FUSED DISCONNECT	2.3 KV, POLE MOUNTED FOR 350 HP COMPRESSOR - 200 AMPS
81L004 SUBSTATION	DISCONNECT & NON-CUTOUT FUSE	2.3 KV, POLE MOUNTED, FOR 480 V UNIT GANGED - NONFUSED WITH POLE MOUNTED NON-CUTOUT, 400 AMP FUSES
8lL005 GANGED - NONFUSED	DISCONNECT	2.3 KV, POLE MOUNTED, FOR 1250 HP BALL MILL -
SIL006 SUBSTATION	ZIG-ZAG TRANSFORMER	1000 KVA ZIG-ZAG TRANSFORMER IN MAIN FOR GROUND/NEUTRAL REFERENCE
N/A	MOBILE TRAILER	

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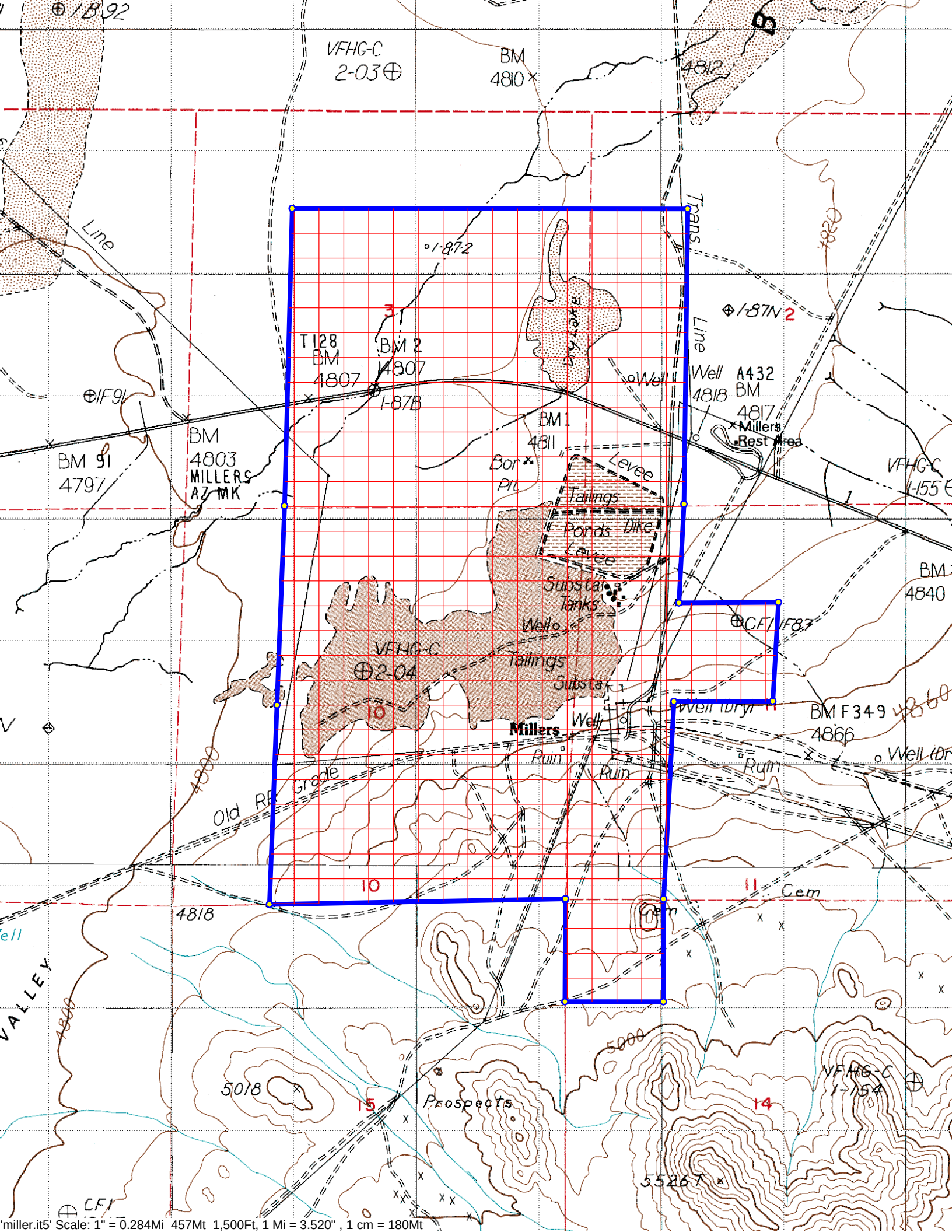
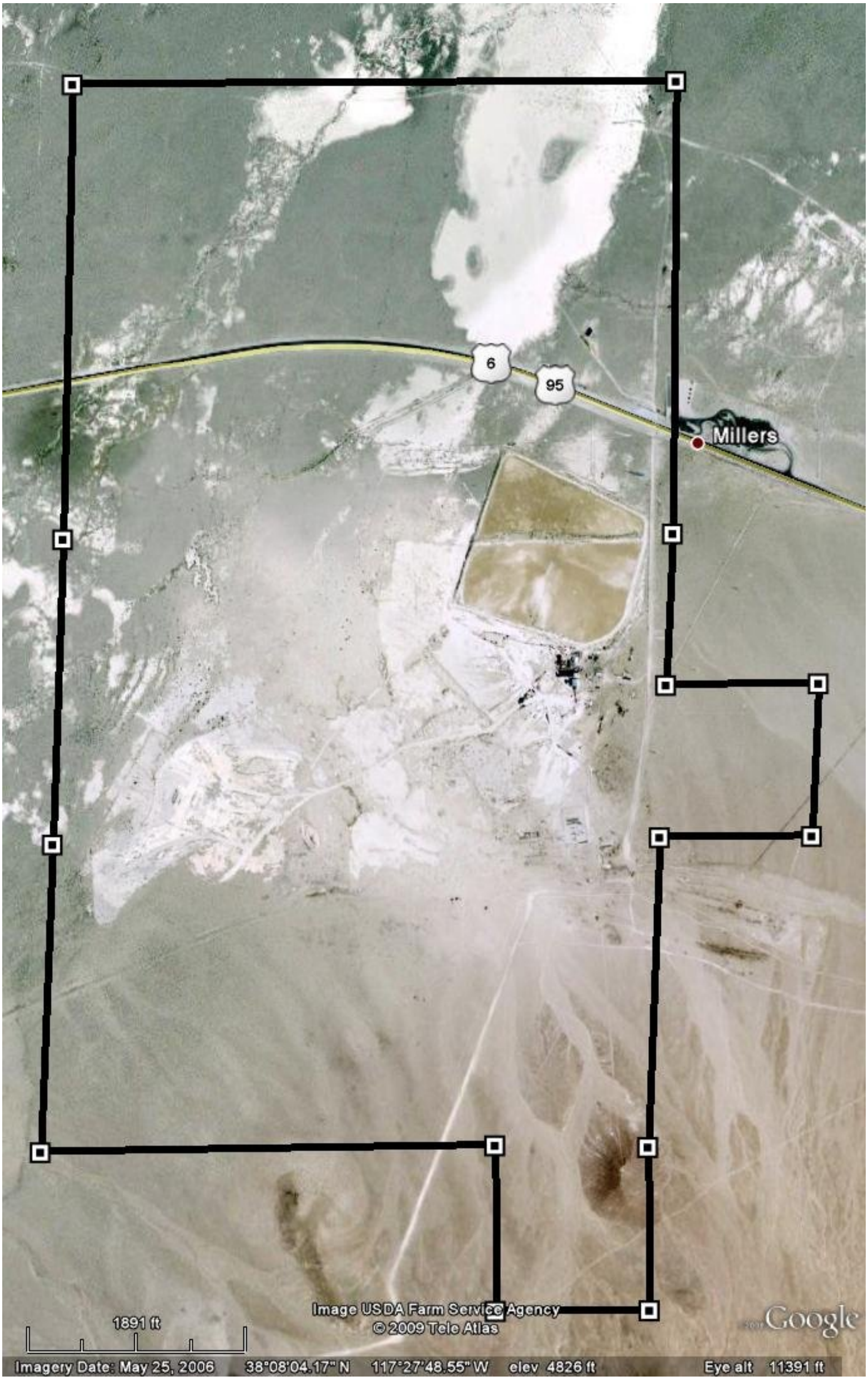
TONOPAH MILL

PHOTOS AND MAPS

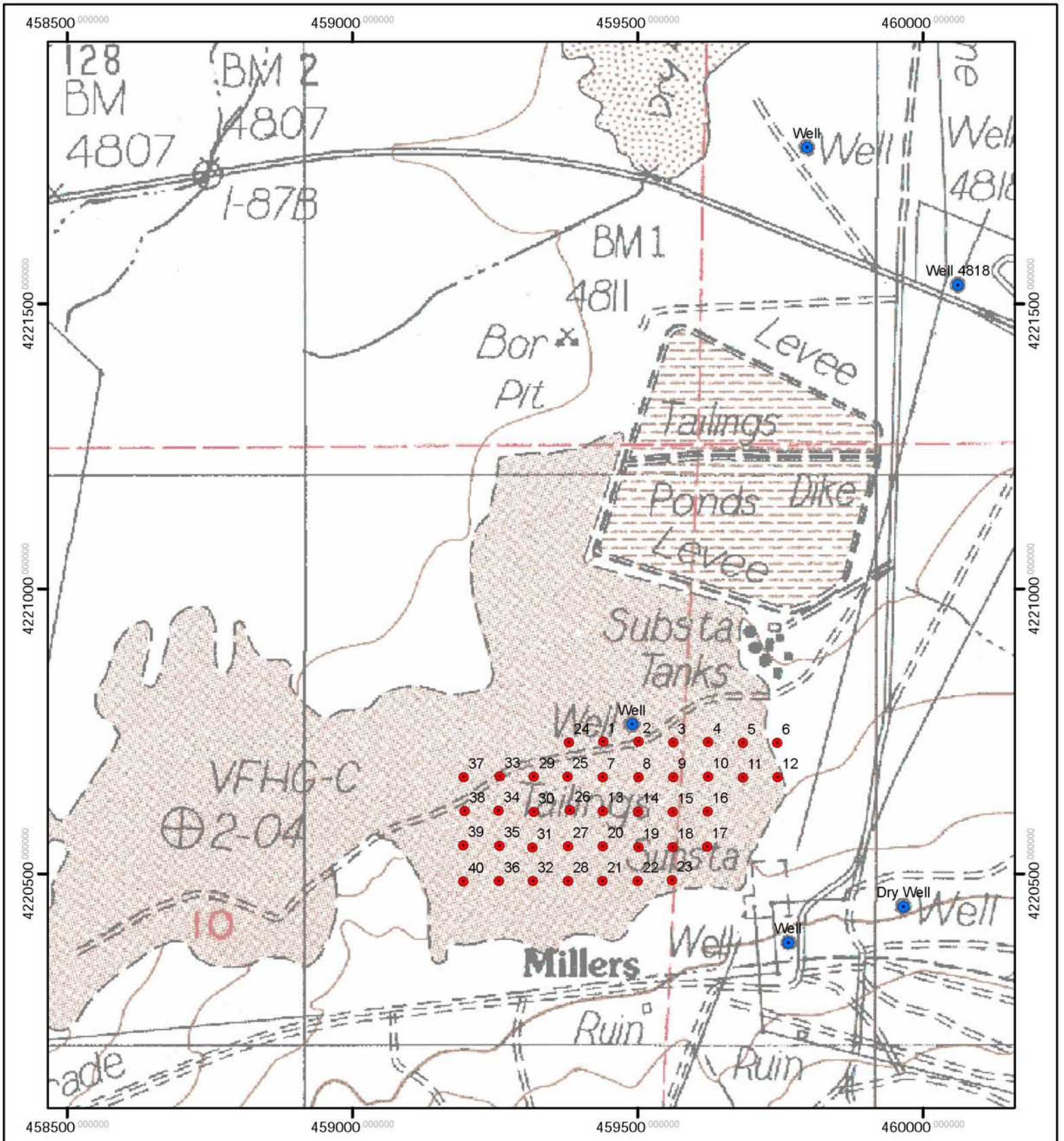


'miller.it5' Scale: 1" = 0.284Mi 457Mt 1,500Ft, 1 Mi = 3.520" , 1 cm = 180Mt


6
95
Millers
1891 ft
Image USDA Farm Service Agency
© 2009 Tele Atlas
Google
Imagery Date: May 25, 2006 38°08'04.17" N 117°27'48.55" W elev 4826 ft Eye alt 11391 ft

Tonopah Mill
&
Miller Tailings

Support Documents



Projection: NAD 1983 UTM Zone 11N
Compiled 9/14/09

Miller Tailings Sampling Project
MT09 Drill Hole Sample Sites
T.3N., R.40E., Section 10, 11

Kappes, Cassiday & Associates

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14 October 2009

Mr. Chris Boll
Global Commodities Group Gold
34 Mitchell Avenue
Plainview, New York 11803

Subject: Miller Tailings Assay Analyses, KCA Project No. 384C

Dear Mr. Boll:

This letter contains the assay analyses for gold and silver completed on samples delivered to Kappes, Cassiday & Associates (KCA) on 12 September 2009 by Mr. Rick West.

A total of eighty-eight (88) individual samples were received on 12 September 2009. Ninety (90) samples were listed on the sample log provided by Mr. West. The two (2) missing samples were identified as MT09-33-15 and MT09-37-10.

Each sample received was weighed and the weights were reported. Each individual sample was blended utilizing a Jones Riffle Splitter and a 500 gram split was taken. The reject material was stored. The 500 gram split was ring and puck pulverized to 80% passing 200 mesh Tyler.

The pulverized material was utilized for the assay test work. The assay work was completed using the following methods:

1) Fire assay of a 30 gram sample of the pulverized material. The doré bead following fire assay was weighed and then digested in aqua-regia. Gold values were determined instrumentally utilizing a flame atomic absorption spectrophotometer. Silver values were determined gravimetrically.
2) Silver values were also determined by wet chemical multi-acid methods with a flame atomic absorption spectrophotometer finish.

The results of the assay analyses completed are included in the attached tables.

Submitted by,

Terence E. Albert

Terence E. Albert

Table 1.
Miller Tailings
Assay Analyses

#	KCA Sample No.	Interval	Weight Received, kg	FA AAS Au, oz/st	FA Grav. Ag, oz/st	WET AAS Ag, oz/st
1	42973 A	MT09 - 01 -05	2.70	0.0222	2.65	2.78
2	42973 B	MT09 - 01 -10	2.41	0.0082	1.87	1.97
3	42973 C	MT09 - 01 -15	1.96	0.0016	0.64	0.60
4	42973 D	MT09 - 02 -05	4.62	0.0141	1.91	1.96
5	42973 E	MT09 - 02 -10	14.08	0.0092	1.19	1.14
6	42973 F	MT09 - 03 -05	9.01	0.0108	1.30	1.30
7	42973 G	MT09 - 03 -10	9.92	0.0019	0.24	0.27
8	42973 H	MT09 - 04 -05	5.77	0.0037	0.68	0.74
9	42973 I	MT09 - 04 -10	4.01	0.0027	0.47	0.52
10	42973 J	MT09 - 05 -05	5.18	0.0064	0.82	0.84
11	42973 K	MT09 - 06 -05	6.33	0.0022	0.23	0.20
12	42973 L	MT09 - 07 -05	5.18	0.0137	2.06	2.14
13	42973 M	MT09 - 07 -10	7.59	0.0062	0.93	0.83
14	42973 N	MT09 - 08 -05	5.77	0.0120	2.16	2.11
15	42973 O	MT09 - 08 -10	6.87	0.0015	0.18	0.16
16	42973 P	MT09 - 09 -05	6.50	0.0095	1.71	1.65
17	42973 Q	MT09 - 09 -10	7.46	0.0018	0.26	0.23
18	42973 R	MT09 - 09 -15	5.19	0.0014	0.27	0.16
19	42973 S	MT09 - 10 -05	5.75	0.0009	0.14	0.15
20	42973 T	MT09 - 10 -10	7.49	0.0025	0.11	0.16
21	42973 U	MT09 - 11 -05	6.40	0.0056	0.65	0.70
22	42973 V	MT09 - 11 -10	7.43	0.0019	<0.05	0.19
23	42973 W	MT09 - 11 -15	6.96	0.0013	0.11	0.16
24	42973 X	MT09 - 12 -05	6.24	0.0037	0.30	0.44
25	42973 Y	MT09 - 12 -10	5.02	0.0026	0.24	0.31

Table 2.
Miller Tailings
Assay Analyses

#	KCA Sample No.	Interval	Weight Received, kg	FA AAS Au, oz/st	FA Grav. Ag, oz/st	WET AAS Ag, oz/st
26	42974 A	MT09 - 13 -05	6.47	0.0142	1.85	1.84
27	42974 B	MT09 - 13 -10	4.15	0.0145	1.87	2.00
28	42974 C	MT09 - 14 -05	3.04	0.0079	1.94	2.39
29	42974 D	MT09 - 14 -10	6.94	0.0087	1.24	1.52
30	42974 E	MT09 - 14 -15	6.49	0.0025	0.23	0.34
31	42974 F	MT09 - 15 -05	6.79	0.0128	1.49	1.65
32	42974 G	MT09 - 15 -10	5.59	0.0035	0.26	0.40
33	42974 H	MT09 - 16 -05	7.53	0.0099	0.51	0.48
34	42974 I	MT09 - 16 -10	7.36	0.0025	0.10	0.10
35	42974 J	MT09 - 17 -05	5.81	0.0082	1.28	1.48
36	42974 K	MT09 - 18 -05	6.11	0.0091	1.26	1.31
37	42974 L	MT09 - 19 -05	3.82	0.0358	2.85	2.85
38	42974 M	MT09 - 19 -10	4.55	0.0267	2.12	2.17
39	42974 N	MT09 - 20 -05	5.67	0.0088	1.24	1.18
40	42974 O	MT09 - 20 -10	6.22	0.0048	0.65	0.69
41	42974 P	MT09 - 21 -05	2.86	0.0147	1.86	1.78
42	42974 Q	MT09 - 21 -10	2.43	0.0154	1.83	1.51
43	42974 R	MT09 - 22 -05	4.88	0.0030	0.53	0.62
44	42974 S	MT09 - 23 -05	5.02	0.0064	0.78	0.90
45	42974 T	MT09 - 23 -10	6.54	0.0010	0.18	0.16
46	42974 U	MT09 - 23 -15	4.54	0.0012	0.22	0.20
47	42974 V	MT09 - 24 -05	3.07	0.0115	1.75	1.80
48	42974 W	MT09 - 24 -10	5.33	0.0140	2.47	2.51
49	42974 X	MT09 - 24 -15	6.12	0.0033	0.73	0.79
50	42974 Y	MT09 - 25 -05	3.19	0.0074	1.98	2.16

Table 3.
Miller Tailings
Assay Analyses

#	KCA Sample No.	Interval	Weight Received, kg	FA AAS Au, oz/st	FA Grav. Ag, oz/st	WET AAS Ag, oz/st
51	42974 Z	MT09 - 25 -10	4.95	0.0059	1.37	1.31
52	42975 A	MT09 - 26 -05	3.43	0.0213	2.73	1.77
53	42975 B	MT09 - 26 -10	5.53	0.0220	2.77	2.84
54	42975 C	MT09 - 26 -15	5.49	0.0162	2.14	1.81
55	42975 D	MT09 - 27 -05	2.87	0.0148	2.07	2.15
56	42975 E	MT09 - 27 -10	6.53	0.0148	1.79	1.99
57	42975 F	MT09 - 28 -05	4.39	0.0183	2.35	2.44
58	42975 G	MT09 - 28 -10	5.04	0.0134	1.98	1.89
59	42975 H	MT09 - 28 -15	5.19	0.0055	0.74	0.81
60	42975 I	MT09 - 29 -05	4.67	0.0099	1.94	1.87
61	42975 J	MT09 - 29 -10	5.51	0.0073	1.65	1.67
62	42975 K	MT09 - 30 -05	3.24	0.0104	1.32	1.73
63	42975 L	MT09 - 30 -10	6.72	0.0062	1.25	1.37
64	42975 M	MT09 - 30 -15	5.21	0.0057	0.77	0.94
65	42975 N	MT09 - 31 -05	5.48	0.0124	2.22	2.40
66	42975 O	MT09 - 31 -10	5.95	0.0139	2.17	2.33
67	42975 P	MT09 - 31 -15	5.67	0.0065	0.91	1.02
68	42975 Q	MT09 - 31 -20	4.92	0.0051	0.78	0.85
69	42975 R	MT09 - 32 -05	5.54	0.0049	0.67	0.82
70	42975 S	MT09 - 32 -10	5.21	0.0097	2.11	2.07
71	42975 T	MT09 - 32 -15	3.02	0.0050	0.83	0.89
72	42975 U	MT09 - 33 -05	4.59	0.0131	2.28	2.30
73	42975 V	MT09 - 33 -10	5.36	0.0071	0.61	0.73
74	42975 W	MT09 - 33 -15	Missing			
75	42975 X	MT09 - 34 -05	4.82	0.0146	2.01	2.12

Table 4.
Miller Tailings
Assay Analyses

#	KCA Sample No.	Interval	Weight Received, kg	FA AAS Au, oz/st	FA Grav. Ag, oz/st	WET AAS Ag, oz/st
76	42975 Y	MT09 - 34 -10	5.16	0.0049	0.83	1.04
77	42975 Z	MT09 - 34 -15	5.01	0.0056	0.55	0.83
78	42976 A	MT09 - 35 -05	4.35	0.0116	1.94	1.92
79	42976 B	MT09 - 35 -10	4.81	0.0028	0.43	0.44
80	42976 C	MT09 - 36 -05	5.77	0.0099	1.91	2.07
81	42976 D	MT09 - 36 -10	6.82	0.0035	0.83	0.75
82	42976 E	MT09 - 37 -05	5.89	0.0090	1.24	1.23
83	42976 F	MT09 - 37 -10	Missing			
84	42976 G	MT09 - 38 -05	5.58	0.0103	1.84	2.11
85	42976 H	MT09 - 38 -15	8.25	0.0026	0.24	0.37
86	42976 I	MT09 - 38 -10	8.32	0.0051	0.52	0.54
87	42976 J	MT09 - 39 -05	5.40	0.0122	1.65	1.72
88	42976 K	MT09 - 39 -10	9.58	0.0046	0.74	0.81
89	42976 L	MT09 - 40 -05	6.37	0.0082	1.41	1.43
90	42976 M	MT09 - 40 -10	5.98	0.0011	0.34	0.28
		Overall	Average	0.0085	1.22	1.25
		Overall	Maximum	0.0358	2.85	2.85
		Overall	Minimum	0.0009	0.10	0.10

Sam Eakin
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E-mail: wv_lonestar@hotmail.com

Miller Mining Property Pile Calculation

Tasked with making a volumetric calculation of the tailings at Shea Mining & Milling mill site in Tonopah, NV I began my visit to the Shea Mill in Tonopah, NV by mapping the tailings pile with a Thales "Mobile-Mapper" CE running Fast Survey using a precision antenna. The unit was mounted on a quad, ground height was measured and input into fast survey. I then drove the perimeter of the tailings pile with the Fast Survey set to take a reading every 5 feet. This produced some 2000 points for the perimeter of the pile. The next day I made several traverses across the pile. I also focused on areas of depressions and rises. I came up with 4700 points for the surface of the tailings pile. I then located the drill holes and took readings on them.

All this data was then imported into Carlson Civil, which is an overlay program for Autocad. The first calculation was done with just the perimeter and top of pile data. I used the calculate stockpile volume command to calculate this first volume and tonnage. The initial tonnage was calculated at 1.7 million. Then I did a 2 grid file calculation. I calculated this is as follows, I first made a base or pad grid file from the perimeter of the tailings pile and then put the drill hole depths to bottom of tailings. I then made a grid file of that as the base or pad for the tailings pad. Then I took the parameter and the surface data and made a top of tailings pile grid file. Then I ran a calculation of the quantity and volume of the space between the top and bottom or pad grid file. I used a density of 57.4 which is 57.4 LBS per cubic foot of tailings based on information I received. Using these calculations I came up with 2.2 million tons of tailings material with an average thickness of 8.5 feet and a maximum thickness of 30.6 feet.

The tailings pile was drilled and tested and I see no reason to believe that the portions of the tailings that were not drilled are any different that the tailings pile that was drilled. The results are assumed to be representative of the entire properties tailing pile. The average grade of the tailings pile would be calculated at 0.0085318 ounces / ton which would calculate to represent 17,063.64 ounces of Au for the entire tailings pile. How the 0.008318 was arrived at was by doing an average of the 88 samples that were assayed. The assay also

returned Ag values on the 88 samples, and the average grade of Ag was 1.17676. Using this we come up with a projected 2.34 million ounces of silver in the tailings pile.

The tailings from which the assays were taken from are assumed to be representative of what I witnessed on the remaining property and the total volume of tailings is above the initially projected quantity of 2.0 Million. I have calculated and verified approximately 2.2 Million tons of total tailings.

Respectfully,

Sam Eakin 10-16-09

Sam Eakin
Licensed Surveyor

Equipment List

&

Mill Diagram

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: GRINDING

UNIT 2 AREA 02

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 5 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
21L001	MCC #1	480 V MOTOR CONTROL CENTER #1 INDOOR		6-002	099
21L002	MCC #2	480 V MOTOR CONTROL CENTER #2 INDOOR		6-002	099
21L003	TRANSFORMER	2,300/480 V SECONDARY TRANSFORMER, 1500 KVA OUTDOOR, PAD MOUNTED		6-001	099
21L004	PANEL	480 V DISTRIBUTION PANEL DP-1 INDOOR		6-009	144
21L005	SWITCHGEAR	LOW VOLTAGE METAL ENCLOSED SWITCHGEAR 1600 AMP INCOMING BREAKERS 2 - 600 AMP FEEDER BREAKERS - INDOOR		6-003	099
21L006	TRANSFORMER	480 V TO 240 V, 3 PHASE, 45 KVA, DRY TYPE INDOOR, TRANSFORMER		6-008	144
21L007	MILL BLDG. LIGHTING TRANSFORMER	480 V TO 120/240 V, 10 KVA, 1Ø TRANSFORMER		-	089
21L008	BALL MILL CONTROLLER	2,300 V, 3Ø, 60 HZ, 1250 HP BALL MILL MOTOR CONTROLLER		-	009

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: GRINDING

UNIT 2 AREA 02

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 6 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
21L009	BALL MILL STARTING CAPACITOR & CONTROL	SWITCHING CAPACITOR 3,600 KVAR, 2,300 V, 3Ø, 60 HZ AND INTERLOCK IN NEMA 12 ENCLOSURE		6-007 6-013	146 171
21L010	ANNUNCIATOR	SOLID STATE, 115 V, 60 HZ RIS AN-1100 MODEL 18-1		6-010	158
21L011	DISTRIBUTION PANEL	240 V, 3 PH, 60 HZ, DISTRIBUTION PANEL DP-2		6-016	179
21L012	LIGHTING PANEL	240 V TO 120 V, 1 PH, 60 HZ, LIGHTING PANEL LP-1		-	089

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 7 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31Y001	SAMPLER	WET, TYPE "B" CUTTER, 36" TRAVEL, GEARY-JENNINGS		4-068	074 172
31YM001	SAMPLER MOTOR	1800 RPM, 115 V	0.5	-	074
31T001	SO_2 PRETREATMENT TANK NO. 1	14,400 GALS, LINED W/HARD NATURAL RUBBER 14' DIA. x 14' HIGH, COVERED (SEE DATA SHEET DS-T-015)		4-041	113
31A001	SO_2 PRETREATMENT TANK NO. 1 AGITATOR	LIGHTNIN 75 Q 7.5 92" DIA. TURBINE, 20 RPM BUTYL RUBBER COVERED		4-022	042
31AM001	AGITATOR MOTOR	1200 RPM, 230/460 V, TEFC, 3 PH	7.5	4-022	042
31T002	SO_2 PRETREATMENT TANK NO. 2	14,400 GALS, LINED W/HARD NATURAL RUBBER 14' DIA. x 14' HIGH, COVERED (SEE DATA SHEET DS-T-016)		4-041	113
31A002	SO_2 PRETREATMENT TANK NO. 2 AGITATOR	LIGHTNIN 75 Q 7.5 92" DIA. TURBINE, 20 RPM BUTYL RUBBER COVERED		4-022	042
			8		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 8 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31AM002	AGITATOR MOTOR	1200 RPM, 230/460 V, TEFC, 3 PH	7.5	4-022	042
31T003	LIME NEUTRALIZATION TANK	5,500 GALS, LINED W/HARD NATURAL RUBBER 10' DIA. x 10' HIGH, COVERED	-	4-064	074 159
31A003	LIME NEUTRALIZATION TANK AGITATOR	BUTYL RUBBER COVERED, GALIGHER 30" DIA. PROP., 115 RPM	-	-	074
31AM003	AGITATOR MOTOR	1200 RPM, 460 V, TEFC, 3 PH	10	-	074
31P001A & B	PACHUCA FEED PUMP	360 GPM, 46' TDH, S.G. 1.395, RUBBER LINED 4 x 6 GALIGHER	-	4-029	074
31PM001A & B	PACHUCA FEED PUMP MOTOR	900 RPM, TEFC, 230/460 V, 3 PH, LOUIS ALLIS 286 T	15x2	4-029	074
31T006	DISCHARGE SUMP	NEUTRALIZED LIME, MILD STEEL, 1200 GALS (DATA SHEET DS-T-031)		-	-
			47.5		

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 9 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31X001	SCRUBBER	HYDROGEN CYANIDE WET SCRUBBER	-	4-033	053
31XM001A	SCRUBBER FAN MOTOR	3,600 RPM, 230/460 V, TEFC, 3 PH	5	4-033	053
31XM001B	SCRUBBER PUMP MOTOR	3,600 RPM, 230/460 V, 3 PH, TEFC	1-1/2	4-033	053
31L001	ANNUNCIATOR	SOLID STATE, 115 V, 60 HZ RIS AN-1100 MODEL 12-1		6-010	158
31T007	SAMPLER FEED BOX	SEE DWG 03-D-4-121		4-071	180
31T008	SAMPLER DISCHARGE SUMP	SEE DWG 03-D-4-121		4-071	180
			6.5		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 10 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31P031	SULPHUR UNLOADING PUMP	60 GPM OF MOLTEN SULPHUR AT 285°F, 155 FT TDW STEAM JACKETED, CENTRIFUGAL, DEAN BROTHERS 1 X 1-1/2 X 8 △1	-	4-049	148
31PM031	PUMP MOTOR	TEFC, 230/460 V, 3 PH, 3500 RPM △1	15	4-049	148
31T031	SULPHUR STORAGE TANK	12 FT DIA X 16 FT H., MILD STEEL 1/4", CAP. 100 TONS OF SULPHUR W/INSULATION, (3) REMOVABLE STEAM COILS AND (2) JACKETED VENTS		4-049	148
31P032	SULPHUR FEED PUMP	ROTARY GEAR TYPE, VARIABLE SPEED, SCR DRIVE 316 S.S., ECO GARCHEM ½ X 1/2 △1		4-049	148
31PM032	PUMP MOTOR	TEFC, 120 V, 1 PH, 90-1750 RPM △1	0.5	4-049	148
31F032	SULPHUR BURNER	SKID MOUNTED, 7.5 T/D SULPHUR		4-049 4-076 △1	148 218 △1
31C032	ATOMIZING AIR COMPRESSOR	100 SCFM @ 65 PSIG TANK MOUNTED W/DUAL CONTROL		4-049	148
31CM032	COMPRESSOR MOTOR	TEFC	10 △1	4-049	148
			25.5 △1		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 11 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31C033	COMBUSTION AIR BLOWER	950 INLET CFM AT 14 PSIG OUTPUT CONSTANT SPEED DRIVE, W/INLET AND DISCHARGE FILTER SILENCERS		4-049	148
31CM033	BLOWER MOTOR	TEFC, 460 V, 3 PH, 3500 RPM	100	4-049	148
31E031	SPRAY QUENCH TOWER	PRIMARY COOLING TOWER, 15" DIA X 6'-0" H.		4-049	148
31T035	WEIR BOX			4-049	148
			100		

LURGI
LURGI CORPORATION

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UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 12 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31P033	QUENCH TOWER DRAIN PUMP	CENTRIF. 1-1/4 X 1 X 4, 20 GPM, 65 FT TDH CAST IRON, WORTHINGTON D-520 △1		-	205 △1
31PM033	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC △1	1.5 △1	-	205 △1
31T032	EMERGENCY WATER SUPPLY TANK	3'-9" DIA X 6'-9" HIGH, 550 GALS PRESSURIZED WITH COMPRESSED AIR TO 50 PSIG (EXISTING, IN STOCK)		-	-
31T033	CAUSTIC HOLDING TANK	5'-7" DIA X 6'-6", OPEN TOP, MILD STEEL, 1000 GALS NET CAP, 9" FREEBOARD (BY FIELD)		-	-
31P034	CAUSTIC FEED PUMP	CENTRIFUGAL, 1-1/4 X 1 X 5, 5 GPM, 22 FT TDH CAST IRON, WORTHINGTON D-520 △1		-	205 △1
31PM034	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH, TEFC △1	0.75 △1	-	205 △1
			2.25 △1		

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 13 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31F031	AUXILIARY BOILER	PACKAGED TYPE, SKID MOUNTED, 130 LBS/HR, 125 PSIG (OPERATING) BRYAN D 250 S 150 W/SEPARATOR		4-056	175
31T034	MAKE-UP WATER TANK	BRYAN MODEL XXA-21 FEED SYSTEM		4-056	175
31P035	BOILER FEED WATER PUMP 1			4-056	175
31PM035	PUMP MOTOR	115/230 V, 1 PH	3/4	4-056	175
31J031	SO_2 ANALYZER	HORIBA SERIES 800, MODEL ESDA 813		6-012 6-015	170
31C034	DRAFT CONTROL FAN	950 CFM, 10.7" S.P., 2790 RPM HEIL MODEL HCB, SERIES A, SIZE 8 SOLID PLASTIC FAN 1		—	184
31CM034	FAN MOTOR	1750 RPM, 460/3/60, TEFC 1	5	—	184
31J032 1	INSTRUMENT AIR DRYER 1	COMPRESSED AIR DRYER, 175 PSIG, 10 SCFM 120 V, HANKINSON NO. 8010 WITH OIL REMOVAL FILTER AND REGULATOR 1	1/6 1	6-035 1	214 1
			5.92		

1

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
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BY: _____ REV. 1

DATE: 5/12/82
SHEET 14 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31X031	LIME SCRUBBER #1	SPRAY TYPE, 18" DIA X 10' H, FRP △1		4-055	184
31P037	SCRUBBER #1 PUMP	CENTRIF. 1-1/4 X 1 X 4, 30 GPM, 45 FT TDH, CAST IRON, WORTHINGTON D-520 △1		-	205 △1
31PM037	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC △1	1.5 △1	-	205 △1
31X032	LIME SCRUBBER #2	SPRAY TYPE, 18" DIA X 10' H, FRP △1		4-055	184
31P038	SCRUBBER #2 PUMP	CENTRIF. 1-1/4 X 1 X 4, 30 GPM, 45 FT TDH, CAST IRON, WORTHINGTON D-520 △1		-	205 △1
31PM038	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC △1	1.5 △1	-	205 △1
			3		

△1

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 1 SO_2 PRETREATMENT

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. _____

DATE: 5/12/82
SHEET 15 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
31T036	FUEL STORAGE TANK	FOR NO. 2 DIESEL FUEL, BURRIED (EXISTING)		—	—
31P036	FUEL PUMP	NO. 2 DIESEL FUEL PUMP, VIKING MODEL FH32D 3 GPM, 154 FT TDH △1		4-073 △1	198 △1
31PM036	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH, TEFC △1	1/3 △1	4-073 △1	198 △1
31B031	RAIN SHED	FOR SULPHUR BURNER, W/PLATFORM AND LADDER (BY FIELD)		—	—
31L032	TRANSFORMER	3 KVA, DRY TYPE, INDOOR 480 V TO 120/240 V, 1 PH, 60 HZ FOR 31F031 AUXILIARY BOILER		6-014	179 △1
31L033	TRANSFER SWITCH	MANUAL, RATED 5 HP, 480 V, TWO POLE, 60 HZ, 22000 A, IC IN NEMA 12 ENCLOSURE FOR 31 F031 AUX. BOILER		6-017	179 △1
31L034	FUSED DISCONNECT	2 POLE, NEMA 12 BOX, 40A FULL LOAD BREAK WITH 15A FUSES FOR 31L032 TRANSFORMER		6-018	179 △1
			1/3		

△1

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 2 PACHUCA TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 16 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
32T001	PACHUCA TANK NO. 1	22' DIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM, LAUNDERS MODIFIED NOZZLES)	-	4-027	060
32T002	PACHUCA TANK NO. 2	22' DIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM, LAUNDERS MODIFIED NOZZLES)	-	4-027	060
32T003	PACHUCA TANK NO. 3	22' DIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM, LAUNDERS MODIFIED NOZZLES)	-	4-027	060
32T004	PACHUCA TANK NO. 4	22' DIA X 34' HIGH, 94,000 GALS (EXISTING TANK W/NEW CONE BOTTOM, LAUNDERS MODIFIED NOZZLES)	-	4-027	060
32S001A & - B	VIBRATING SCREENS	2' WIDE X 4' LONG, 20 MESH, KOLBERG ID-244 TRASH SCREENS, (EXISTING, IN STOCK)	-	-	-
32SM001A & - B	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC, 143 T, US MOTOR (EXISTING, IN STOCK)	1x2	-	-
32D001	TRAMP MATERIAL CONTAINER	55 GAL. DRUM	-	-	-
			2		

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 2 PACHUCA TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 17 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
32C001	PROCESS AIR COMPRESSOR NO. 1	769 CFM @ 51 PSI, MAX WORK. PRESSURE 3.5 BARS MAX. SPEED 970 RPM, ATLAS COPCO DA 23 (EXISTING)	-	-	-
32CM001	COMPRESSOR MOTOR	885 RPM, 230/460 V, NEWMAN, 3 PH	100	-	-
32P001	FLOOR SUMP PUMP	VERTICAL, 1.5" SIZE, RUBBER LINED, GALIGHER SRA-1100 (EXISTING)	-	-	-
32PM001	FLOOR SUMP PUMP MOTOR	1800 RPM, 460 V, TEFC (EXISTING)	3	-	111
32C002	PROCESS AIR COMPRESSOR NO. 2	INGERSOLL-RAND X LE, 2 STAGE, 24¼" & 14½" BORE, 2006 CFM, 100 PSIG W/AFTERCOOLER OIL/MOISTURE SEPARATOR, SKID MOUNTED		4-019	070
32CM002A	COMPRESSOR MOTOR	450 RPM, 2300 V, 60 HZ, 69.5 A, SYNCHRONOUS (WESTINGHOUSE)	350	4-019	070
32T005	AIR RECEIVER	3' DIA x 8' HIGH		-	070
32L002	MOTOR CONTROLLER	2.4 KV, 60 HZ, FOR 350 HP COMPRESSOR 32 C M02A		4-019	070
			453		

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 3 ADSORPTION TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 18 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
33T001	CARBON ADSORPTION TANK NO. 1	23' DIA. x 21' HIGH, OPEN TOP 56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL		-	076
33A001	CARBON ADSORPTION TANK AGITATOR	100" DIA. 30 RPM CARBON STEEL CHEMINEER 7 HTD25		4-026	054
33AM001	AGITATOR MOTOR	900 RPM, 460 V, TEFC	25	4-026	054
33T002	CARBON ADSORPTION TANK NO. 2	23' DIA. x 21' HIGH, OPEN TOP 56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL		-	076
33A002	CARBON ADSORPTION TANK AGITATOR	100" DIA. 30 RPM CARBON STEEL CHEMINEER 7HTD25		4-026	054
33AM002	AGITATOR MOTOR	900 RPM, 460 V, TEFC	25	4-026	054
			50		

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 3 ADSORPTION TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 19 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
33T003	CARBON ADSORPTION TANK NO. 3	23' DIA. x 21' HIGH, OPEN TOP 56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL		-	076
33A003	CARBON ADSORPTION TANK AGITATOR	100" DIA. 30 RPM CARBON STEEL CHEMINEER 7HTD25		4-026	054
33AM003	AGITATOR MOTOR	900 RPM, 460 V, TEFC	25	4-026	054
33T004	CARBON ADSORPTION TANK NO. 4	23' DIA. x 21' HIGH, OPEN TOP 56,000 GALS, S.G. 1.395, 45% SOLIDS, pH 10.5, POLYETHYLENE LINED BOTTOM, MILD STEEL		-	076
33A004	CARBON ADSORPTION TANK AGITATOR	100" DIA. 30 RPM CARBON STEEL CHEMINEER 7HTD25		4-026	054
33AM004	AGITATOR MOTOR	900 RPM, 460 V, TEFC	25	4-026	054
			50		

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 3 ADSORPTION TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 20 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
33Y001	AIR LIFT ASSEMBLY TANK NO. 1	300 SCFM CAPACITY, 3" I.D. DOWNCOMER 8" I.D. LIFT TUBE, MILD STEEL (MODIFIED BY FIELD)		-	-
33Y002	AIR LIFT ASSEMBLY TANK NO. 2	300 SCFM CAPACITY, 3" I.D. DOWNCOMER 8" I.D. LIFT TUBE, MILD STEEL (MODIFIED BY FIELD)		-	-
33Y003	AIR LIFT ASSEMBLY TANK NO. 3	300 SCFM CAPACITY, 3" I.D. DOWNCOMER 8" I.D. LIFT TUBE, MILD STEEL (MODIFIED BY FIELD)		-	-
33Y004	AIR LIFT ASSEMBLY TANK NO. 4	300 SCFM CAPACITY, 3" I.D. DOWNCOMER 8" I.D. LIFT TUBE, MILD STEEL (MODIFIED BY FIELD)		-	-

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 3 ADSORPTION TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 21 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
33S001	VIBRATING SCREEN NO. 1	4' WIDE X 6' LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE	-	4-025 4-063	055 153
33SM001	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC	1.5	4-025	055
33S002	VIBRATING SCREEN NO. 2	4' WIDE X 6' LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE	-	4-025 4-063	055 153
33SM002	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC	1.5 4-025		055
33S003	VIBRATING SCREEN NO. 3	4' WIDE X 6' LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE	-	4-025 4-063	055 153
33SM003	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC	1.5 4-025		055
33S004	VIBRATING SCREEN NO. 4	4' WIDE X 6' LONG, 20 MESH CARBON/PULP SEPARATION @ 100%-200 MESH 362 GPM PULP, 5420 LB/HR CARBON OVERSIZE	-	4-025 4-063	055 153
33SM004	VIBRATING SCREEN MOTOR	3600 RPM, 460 V, TEFC	1.5 4-025		055
			6		

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LURGI CORPORATION

EQUIPMENT LIST
UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 3 ADSORPTION TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 22 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
33S006	VIBRATING SCREEN	2' WIDE X 4' LONG, 1500-1700 RPM KOLBERG ID - 244 CARBON WASH (EXISTING, IN STOCK)	-	-	-
33SM006	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC, 143 T US MOTOR (EXISTING, IN STOCK)	1	-	-
33Z001	SCREEN LUBRICATOR	LUBRICATOR FOR DERRICK SCREENS		4-025	055
33ZM001	LUBRICATOR MOTOR	110 V, SINGLE PHASE	1/3	4-025	055
33T006	LOADED CARBON BIN	550 FT^3 CAP., MILD STEEL (DATA SHEET DS-T-024)	-	2-005	127
33H001	EDUCTOR	2" I.D. PARDEE B-100, PVC, MODEL P FLANGED		4-021	049
33P002	FLOOR SUMP PUMP	VERTICAL, 1½ X 3-6, 104 GPM, 48 FT TDH GOULDS 3171 A/I		4-032	137
33PM002	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC	3	4-032	137
			4.3		

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UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 3 ADSORPTION TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 23 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
33S007A & B	VIBRATING SCREEN	2' WIDE X 4' LONG SAFETY SCREEN, 30 MESH DEGRADED CARBON/TAILING SEPARATION @ 100%-200 MESH, 366 GPM PULP TOTAL, KOLBERG ID-244 (EXISTING, IN STOCK)	-	-	-
33SM007A & B	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC, 143T, US MOTOR (EXISTING, IN STOCK)	1x2	-	-
33Y006	TAILINGS SAMPLER	WET, TYPE "B" CUTTER, 30" TRAVEL, GEARY-JENNINGS		- 4-068	074 172
33YM006	TAILINGS SAMPLER MOTOR	1800 RPM, 115 V	0.5	-	074
33T007	TAILINGS DISPOSAL SUMP	MILD STEEL, 925 GALS, EXISTING, MODIFIED BY FIELD (DATA SHEET DS-T-021)		-	-
33P003A & B	TAILINGS DISPOSAL PUMP	370 GPM, S.G. 1.262, RUBBER LINED, 72' TDH CENTRIF. 4 X 6, GALIGHER D4 VRG-200		4-029	107
33PM003A & B	PUMP MOTOR	1800 RPM, 460 V, TEFC	30x2	4-029	107
33T010	SAMPLER FEED BOX	SEE DWG 03-D-4-122		4-071	180
			62.5		

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UNIT: LEACHING

UNIT 3 AREA 03

SYSTEM 3 ADSORPTION TANKS

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 24 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
33S008	VIBRATING SCREEN	2' WIDE X 4' LONG, 100 GPM, 5.5 TPD SOLIDS, KOLBERG 1D-244 REACTIVATED CARBON SCREEN (EXISTING, IN STOCK)	-	-	-
33SM008	VIBRATING SCREEN MOTOR	1800 RPM, 460 V, TEFC (EXISTING, IN STOCK)	1	-	-
33T008	NITRIC ACID WASH TANK	95 FT^3 CAP. TANK 316 STAINLESS STEEL (DATA SHEET DS-T-032)	-	4-058 4-064	157 159
33T009	REACTIVATED CARBON TRANSPORT SUMP	1000 GALS, MILD STEEL (DATA SHEET DS-T-029)	-	-	-
33P004	REACTIVATED CARBON TRANSPORT PUMP	CENTRIF. 1½ X 1 X 6, 55 GPM, 160 FT. TDH DUCTILE IRON, WORTHINGTON D-1022	-	4-029	136
33PM004	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC	7.5	4-029	136
33P005	WASH TANK FLUSH PUMP	VERTICAL SUMP PUMP, 20 GPM, 30 FT TDH 1-1/2" DUCTILE IRON, S.S. IMPELLER GALIGHER 1.5 SAA1100 X 36 △1		4-062	173 △1
33PM005	PUMP MOTOR	1800 RPM, 460 V, 3PH, TEFC	3 5 △1	4-062	173 △1
			11.5		

△1

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: STRIPPING
UNIT 4 AREA 04

MARGARET HILLS
PROJECT NO. 4011
BY: _____ REV. 1
DATE: 5/12/82
SHEET 25 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
41V001	CARBON STRIPPING VESSEL	66" I.D. X 16' INSIDE HEIGHT	-	4-028	108
41H001	EDUCTOR	2" I.D. PARDEE B-100, PVC, MODEL P FLANGED	-	4-021	049
41D001	STRIPPED CARBON STORAGE BIN	375 FT^3, MILD STEEL (DATA SHEET DS-T-034)	-	4-059 4-060	157 154
41X001	CARBON REACTIVATION KILN	540 LBS/HOUR OF CARBON KILN 26" DIA., INDIRECT FIRED	-	4-007	026
41XM001A	KILN MAIN DRIVE MOTOR	1800 RPM, 230 V, TEFC, 3 PH.	2	4-007	026
41XG001	KILN EMERGENCY DRIVE	GASOLINE ENGINE USED FOR PROPANE, 2½ HP		4-007	026
41XM001B	KILN SCREW FEED DRIVE MOTOR	VARIABLE SPEED, 115 V SINGLE PH.	1	4-007	026
41XM001C	KILN BLOWER MOTOR	1800 RPM, 230 V, 3 PH.	1½	4-007	026
			4.5		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: STRIPPING
UNIT 4 AREA 04

MARGARET HILLS
PROJECT NO. 4011
BY: _____ REV. 1
DATE: 5/12/82
SHEET 26 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
41T001	QUENCH TANK	630 GAL, 600 LBS/HR OF CARBON, STAINLESS STEEL (DATA SHEET DS-T-033)	-	4-050	153
41H002	EDUCTOR	1-1/2" I.D. PARDEE B-100, PVC, MODEL P FLANGED	-	4-021	049
41T003	STORAGE TANK	DILUTE NITRIC ACID 2,000 GALS, 8'-0" DIA. X 7'-6" HIGH S.S. CONSTRUCTION (DATA SHEET DS-T-027)		-	070
41P006	BARREL PUMP	BARREL PUMP (PORTABLE), SETHCO MODEL GMC-40 6 GPM, 10 FT HEAD, CPVC-POLYPROPYLENE		4-048	123
41PM006	PUMP MOTOR	3400 RPM, 115 V, 60 HZ	1/4	4-048	123
41L001	ANNUNCIATOR	SOLID STATE, 115 V, 60 HZ RIS AN-1100, MODEL 24V-1		6-010	158
			1/4		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: STRIPPING

UNIT 4 AREA 04

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 27 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
41P003	NITRIC ACID PUMP	20 GPM, 48 FT TDH, S.S. CONSTRUCTION, 1¼ X 1 X 4 DILUTE NITRIC ACID, 1.01 S.G. WORTHINGTON D-520		4-029	136
41PM003	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC	3/4	4-029	136
41T004	WATER TANK	STRIPPED CARBON TRANSPORT WATER TANK MILD STEEL, 1500 GALS, 5'-7"Ø X 10 (DATA SHEET DS-T-029)		-	070
41P005	STRIPPED CARBON TRANSPORT PUMP	CENTRIF. 3 X 1½ X 6, 125 GPM, 171 FT TDH DUCTILE IRON, WORTHINGTON D-1022		4-029	136
41PM005	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC	10	4-029	136
41F001	BOILER	EXISTING PACKAGED BOILER, 100 HP CAP. 3,350,000 BTU/HR, 300 PSI MAX., HEATING SURFACE 155 FT² NATIONAL BOAR #2848		-	-
41FM001A	BOILER BLOWER MOTOR	1800 RPM, 240 V, 3 PH (EXISTING)	5	-	-
			15.75		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: STRIPPING

UNIT 4 AREA 04

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 28 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
41E001	HEAT EXCHANGER FIRST STAGE	PLATE TYPE, APV MODEL SR35, SS 316		4-011	112
41E002	HEAT EXCHANGER SECOND STAGE	COMBINED WITH 41 E001		4-012	112
41T007	STRIPPING VESSEL DRAIN SUMP	250 GALS, S.S., 4' DIA. X 4.5' H., COVERED (DATA SHEET DS-T-028)		4-047	153
41P007	STRIPPING VESSEL DRAIN PUMP	CENTRIF. 3 X 2 X 6, 100 GPM, 27 FT. TDH DUCTILE IRON, WORTHINGTON D-1022		4-029	136
41PM007	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH, TEFC	1½	4-029	136
			1½		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: ELECTROWINNING
UNIT 1 AREA 01

MARGARET HILLS
PROJECT NO. 4011
BY: _____ REV. 1
DATE: 5/12/82

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
51T001	ELECTROLYTE SURGE TANK	15,000 GALS, 12' DIA. X 20'-6" H., FRP WITH COVER (DATA SHEET DS-T-025)		4-045	128
51X001A THRU-E	ELECTROWINNING CELLS	5 CELLS, 36" X 40" X 59", FRP		4-023	069
51T002	SPENT ELECTROLYTE HOLDING TANK	15,000 GALS, 12' DIA. X 20'-6" H., FRP WITH COVER (DATA SHEET DS-T-026)		4-045	128
51P001	SPENT ELECTROLYTE PUMP	CENTRIF. 3 X 1-1/2 X 8, 90 GPM, 275 FT. TDH S.S., MECH. SEAL, WORTHINGTON D-1022		4-029	136
51PM001	PUMP MOTOR	3600 RPM, 460 V, 3 PH., TEFC	15	4-029	136
51T003	CATHODE DIP WASH TANK	3' WIDE X 3' HIGH X 2' LONG MILD STEEL (BY FIELD)		-	-
51X002	MELTING FURNACE	EXISTING BULLION MELTING FURNACE, 33" DIA X 30" H. HAUSFELD 600		-	-
51XM002	BLOWER MOTOR	1725 RPM, 440 V, 3 PH, MELTING FURNACE BLOWER MOTOR (EXISTING)	1	-	-
			16		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: ELECTROWINNING
UNIT 1 AREA 01

MARGARET HILLS
PROJECT NO. 4011
BY: _____ REV. 1
DATE: 5/12/82
SHEET 30 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
51Y001	SAMPLER	INTERVAL SAMPLING PUMP MODEL 7576, 115 VAC W/PUMP HEAD MASTERFLEX MODEL 7013-20		4-065	160
51YM001	SAMPLER MOTOR	115 V, 1 PHASE	0.1	4-065	160
51Y002	SAMPLER	INTERVAL SAMPLING PUMP MODEL 7576, 115 VAC W/PUMP HEAD MASTERFLEX MODEL 7013-20		4-065	160
51YM002	SAMPLER MOTOR	115 V, 1 PHASE	0.1	4-065	160
51L001	D.C. POWER SUPPLY	RECTIFIER FOR ELECTROWINNING CELLS, 500 A, 0-40 VDC.		6-004	165
51P002	EL. CELLS FEED PUMP	CENTRIF. 2 X 1 X 10, 35 GPM, 77 FT. TDH S.S., MECH. SEAL, WORTHINGTON D-1022		4-029	136
51PM002	PUMP MOTOR	1800 RPM, 460 V, 3 PH, TEFC	3	4-029	136
51T004	EL. CELLS DISCHARGE SUMP	85 GALS, S.S. (DATA SHEET DS-T-030)		4-057	157
			3.2		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: ELECTROWINNING
UNIT 1 AREA 01

MARGARET HILLS
PROJECT NO. 4011
BY: _____ REV. 1
DATE: 5/12/82
SHEET 31 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
51P003	EL. CELLS DISCHARGE PUMP	CENTRIF. 2 X 1 X 10, 35 GPM, 103 FT. TDH S.S., MECH. SEAL, WORTHINGTON D-1022		4-029	136
51PM003	PUMP MOTOR	1800 RPM, 460 V, 3 PH, TEFC	5	4-029	136
51P004	ELECTROLYTE BLEED PUMP	CENTRIF. 1-1/4 X 1 X 4, 5 GPM, 55 FT TDH S.S. MECH. SEAL, WORTHINGTON D-520		4-062	136
51PM004	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC	½	4-062	136
			5.5		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: REAGENTS

UNIT 6 AREA 06

SYSTEM 2 SODIUM CYANIDE & HYDROXIDE

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
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TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
62T001	MIXING TANK	SODIUM CYANIDE, 3,000 GALS, 8' DIA. X 10' H., COVERED, MILD STEEL		-	070
62A001	MIXING TANK AGITATOR	SIDE MOUNT AGITATOR		4-035	070
62AM001	AGITATOR MOTOR	1800 RPM, 460 V, TEFC	1	4-035	070
62P001	FEED PUMP	CENTRIF., 1-1/4 X 1 X 5, 10 GPM, 1.1 S.G., SODIUM CYANIDE, WORTHINGTON D-520, C1/NORYL 30 FT TDH		4-061	136
62PM001	PUMP MOTOR	1800 RPM, 460 V, TEFC	0.5	4-061	136
62T002	MIXING TANK	SODIUM HYDROXIDE, 1700 GALS, 6'-6" DIA. X 8'-6" H., OPEN TOP, MILD STEEL		-	070
			1.5		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: REAGENTS
UNIT 6 AREA 06
SYSTEM 2 SODIUM CYANIDE & HYDROXIDE

MARGARET HILLS
PROJECT NO. 4011
BY: _____ REV. 1
DATE: 5/12/82
PAGE 33 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
62A002	MIXING TANK AGITATOR	SIDE MOUNT AGITATOR		4-035	070
62AM002	AGITATOR MOTOR	1800 RPM, 115 V, SINGLE PHASE TEFC LIGHTNIN	1	4-035	070
62P002	FEED PUMP	CENTRIF. 1-1/4 X 1 X 4, 5 GPM, 63 FT TDH SODIUM HYDROXIDE, WORTHINGTON D-520, C1/NORYL		4-061	136
62PM002	PUMP MOTOR	3600 RPM, 460 V, TEFC	0.5	4-061	136
62M001	HOIST	1 TON CAP. ELECTRIC CHAIN HOIST PLAIN TROLLEY, DAYTON (EXISTING, RELOCATED)		-	-
62MM001	HOIST MOTOR	1725 RPM, 460 V, 3 PH. (EXISTING, RELOCATED)	1	-	-
			2.5		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: REAGENTS

UNIT 6 AREA 06

SYSTEM 2 SODIUM CYANIDE & HYDROXIDE

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
PAGE 34 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
62T003	STORAGE TANK	SODIUM CYANIDE, 6,000 GALS, 8' DIA. X 17' HIGH, COVERED MILD STEEL		-	070
62P004	METERING PUMP	SODIUM CYANIDE, 3.5 GPM MAX., 1.1 S.G. VARIABLE SPEED		4-031	070
62PM004	PUMP MOTOR	1725 RPM, 3 PH G.E. 5K63AC3439	3	4-031	070
			3		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: REAGENTS

UNIT 6 AREA 06

SYSTEM 3 MILK OF LIME

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 35 OF 40

63D001	DRY LIME SILO	60 TON CAP., MILD STEEL		4-066	130
63M001	VIBRATING FEEDER	2 TONS/HOUR, S.G. SOLIDS 2.2 ERIEZ-MAGNETICS H1-V1 MODEL 50 A STYLE 26 115 V, 60 HZ, 4.0 AMPS		4-020	074
63G001	BALL MILL	3' Ø X 3' LG. (PURCHASED BY MNR)	10	-	-
63GM001	BALL MILL MOTOR	GENERAL ELECTRIC, 208/220-440 V, 3 PH 1175 RPM, 284 U, (PURCHASED BY MNR)	10	-	-
			10		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: REAGENTS

UNIT 6 AREA 06

SYSTEM 3 MILK OF LIME

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
SHEET 36 OF 40

63T001	MILL DISCHARGE SUMP	BY FIELD			
63P001	MILL DISCHARGE PUMP	CENTRIF. 1-1/4 X 1 X 4, 16 GPM, 41 FT TDH MILK OF LIME, WORTHINGTON D-520		4-029	136
63PM001	PUMP MOTOR	3600 RPM, 230/460 V, 3 PH, TEFC	3/4	4-029	136
63T002	STORAGE TANK	MILK OF LIME 11'-2" DIA. X 18'-6" HIGH, 12,000 GALS			070
63A001	TANK AGITATOR	LIGHTNIN - MODEL 322, 3" DIA. X 13'-4" SHAFT 42" PITCHED BLADE RUBBER COVERED IMPELLER (EXISTING, IN STOCK)		-	-
63AM001	AGITATOR MOTOR	750 RPM, 480 V (EXISTING, IN STOCK)	10	-	-
63P002	DISCHARGE PUMP	CENTRIF. 1½ X 1 X 4, 10 GPM, 65 FT TDH WORTHINGTON D-520 C1/NORYL MILK OF LIME, S.G. 1.115, 20% SOLIDS		4-029	136
63PM002	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC	3/4	4-029	136
			11.5		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: WATER

UNIT 7 AREA 07

SYSTEM 1 PROCESS WATER

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
PAGE 37 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
71P001	PROCESS WATER PUMP	CENTRIF. 4 X 4 X 10, 240 GPM, 65 FT. TDH DUCTILE IRON, SELF PRIMING, GOULDS 3796 MT		4-029 4-074 △1	137 210 △1
71PM001	PUMP MOTOR	1800 RPM, 230/460 V, 3 PH., TEFC	10	4-029	137
71T001	PROCESS WATER TANK	EXISTING 40 FT. DIA. THICKENER TANK		-	-
71P002	PROCESS WATER PUMP	CENTRIF. 3 X 2 X 6, 240 GPM, 48 FT TDH, DUCTILE IRON, WORTHINGTON D-1022 21 PSI		4-029	136
71PM002	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC	7½	4-029	136
			17.5		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: WATER

UNIT 7 AREA 07

SYSTEM 2 FRESH WATER

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
72P001	FRESH WATER PUMP	RED JACKET, 3" DIA. DISCHARGE 76' DEEP WELL WATER PUMP (EXISTING) ADJACENT TO SUBSTATION		-	-
72PM001	PUMP MOTOR	3600 RPM, 230 V, 3 PH (EXISTING)	15	-	-
72P002	FRESH WATER PUMP	RED JACKET, 3" DIA. DISCHARGE 81' DEEP WELL WATER PUMP (EXISTING) AT OLD TAILINGS DUMP			
72PM002	PUMP MOTOR	3600 RPM, 460 V, 3 PH (EXISTING)	15		
72T002	FRESH WATER TANK	EXISTING 40 FT. DIA. THICKENER		-	-
72P003	FRESH WATER PUMP	CENTRIF. 3 X 2 X 6, 250 GPM, 150 FT TDH WORTHINGTON D-1022		4-067	136
72PM003	PUMP MOTOR	3600 RPM, 460 V, 3 PH, TEFC	20	4-067	136
			50		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: WATER

UNIT 7 AREA 07

SYSTEM 3 FIRE WATER

MARGARET HILLS
PROJECT NO. 4011

BY: _____ REV. 1

DATE: 5/12/82
PAGE 39 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
73P001	FIRE WATER PUMP	PACIFIC MODEL 2095-1 2 X 2-1/2 X 9-1/2, 100 GPM, 100 PSI (EXISTING, IN STOCK) 		-	-
73PM001	PUMP MOTOR	BALDOR 460 V, 3525 RPM (EXISTING, IN STOCK) 	25	-	-
			25		

LURGI
LURGI CORPORATION

EQUIPMENT LIST
UNIT: MAIN SUBSTATION
UNIT 8 AREA 08

MARGARET HILLS
PROJECT NO. 4011
BY: _____ REV. 1
DATE: 5/12/82
SHEET 40 OF 40

TAG NO.	ITEM	DESCRIPTION	CONN HP	PAR NO.	P.O. NO.
81L002A, -B & -C	TRANSFORMER	SUBSTATION TRANSFORMERS 55/2.3 KV 3 - 833 KVA, 1 PH., 60 HZ		6-005	099
81L003	FUSED DISCONNECT	2.3 KV, POLE MOUNTED FOR 350 HP COMPRESSOR - 200 AMPS		6-006	147
81L004	DISCONNECT & NON-CUTOUT FUSE	2.3 KV, POLE MOUNTED, FOR 480 V UNIT SUBSTATION - GANGED - NONFUSED WITH POLE MOUNTED NON-CUTOUT, 400 AMP FUSES		6-006	147
81L005	DISCONNECT	2.3 KV, POLE MOUNTED, FOR 1250 HP BALL MILL - GANGED - NONFUSED		6-006	147
81L006	ZIG-ZAG TRANSFORMER	1000 KVA ZIG-ZAG TRANSFORMER IN MAIN SUBSTATION FOR GROUND/NEUTRAL REFERENCE			099

THE FOLLOWING DRAWINGS ARE INCLUDED

Process Flow Diagrams

00-D-4-001 Rev. H
00-D-4-002 Rev. G
-003 Rev. G
-004 Rev. F
00-D-4-005 Rev. E Plot Plan

Piping & Instrumentation Diagrams

00-D-5-001
5-002
5-003 Rev. 3
5-004 Rev. 3
5-005 Rev. 2
5-006 Rev. 2
5-007 Rev. 2
5-008 Rev. 1
5-009

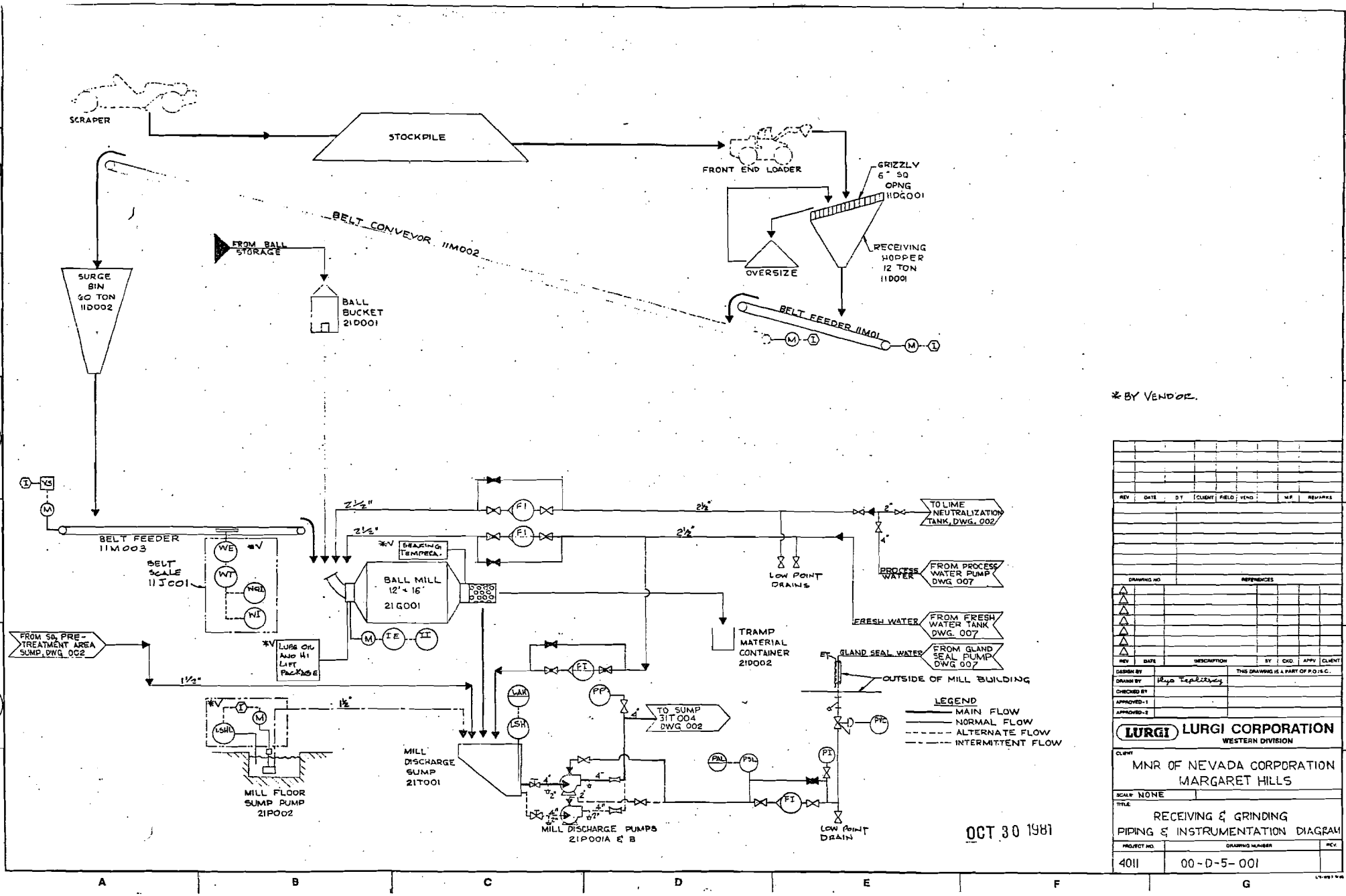
General Arrangement & Details

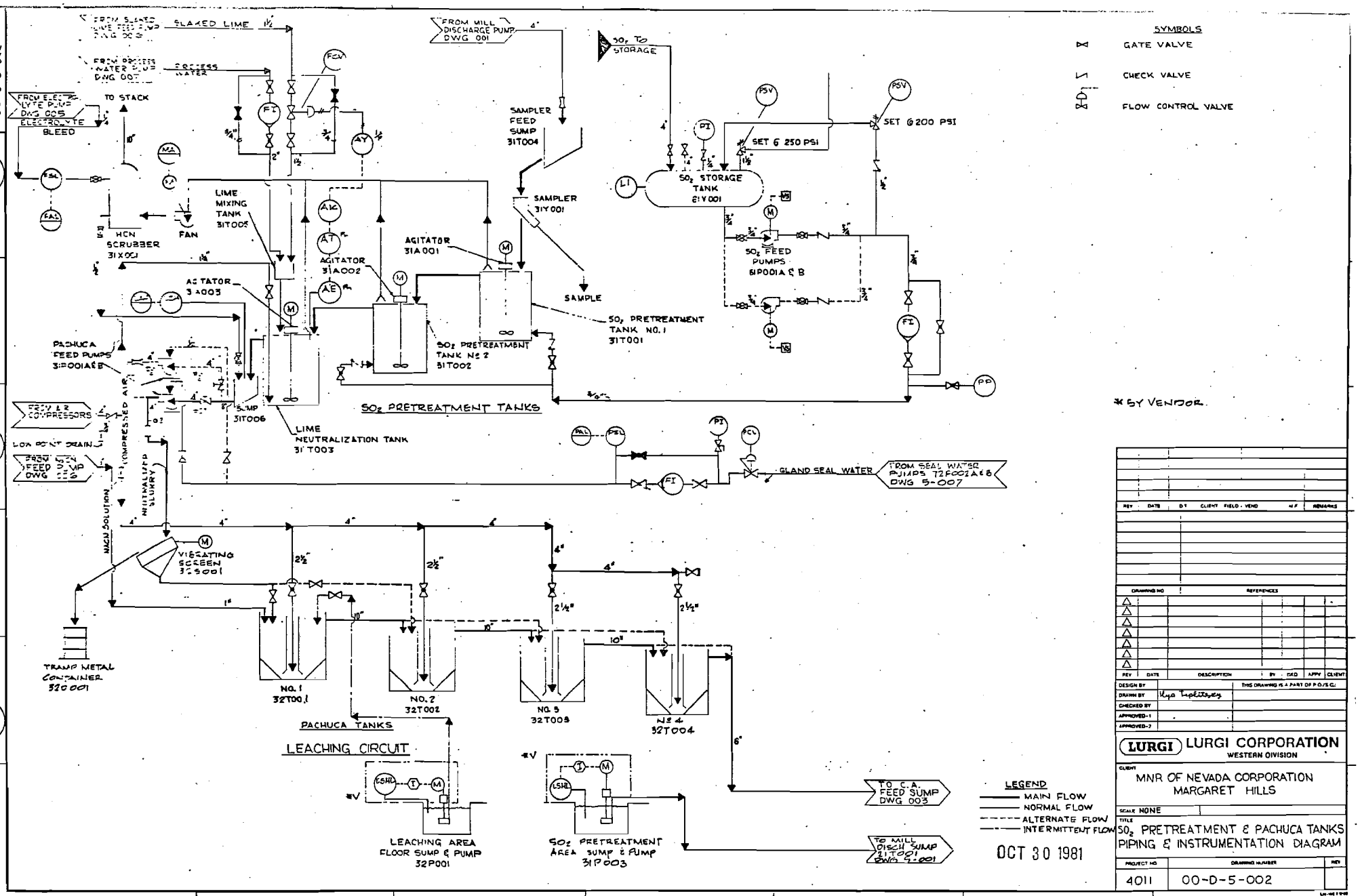
01-D-2-100 Rev. M
01-D-4-101 Rev. 8
01-D-4-102 Rev. 8
01-D-2-106
01-D-2-107
02-D-4-112 Rev. O
02-B-4-111 Rev. O
2-6110-60341 (12' dia x 16' lg AC mill dwg)
03-D-4-001
03-D-4-011 Rev. A
03-D-4-012 Rev. A
03-D-4-013 Rev. A
03-D-4-014 Rev. A
06-D-4-101 Rev. O
06-D-4-106 Rev. 1
DS-V-011 Rev. 5

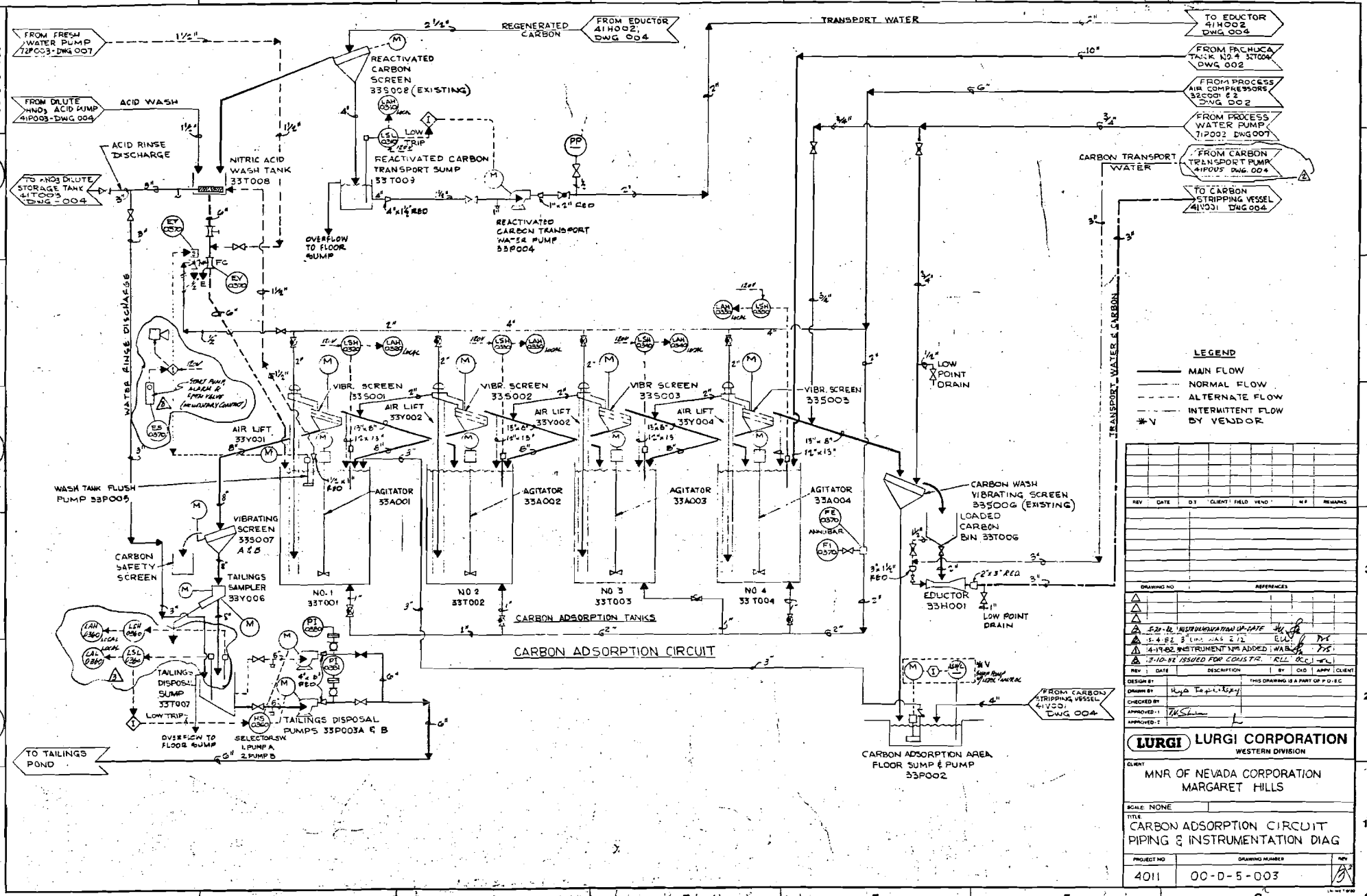
Single Line Diagrams

00-D-6-001 Rev. 7
00-D-6-002 Rev. 5
00-D-6-003 Rev. 7
00-D-6-004 Rev. 8
Sketch Nº MCC-1-111682 Rev. 1
Sketch Nº MCC-2-111782 Rev. 2

4-Electrical Motor Data Sheets Rev. 4


00-D-5-001
SCRAPER
STOCKPILE
FRONT END LOADER
GRIZZLY 6" SQ OPNG 11DG001
RECEIVING HOPPER 12 TON 11D001
OVERSIZE
BELT CONVEYOR 11M002
FROM BALL STORAGE
BALL BUCKET 21D001
SURGE BIN 40 TON 11D002
BELT FEEDER 11M01
BELT FEEDER 11M003
BELT SCALE 11J001
BALL MILL 12' x 16' 21G001
BEARING TEMPERA.
LUBE OIL AND HI LIFT PACKAGE
FROM SO4 PRE-TREATMENT AREA SUMP, DWG 002
TRAMP MATERIAL CONTAINER 21D002
LOW POINT DRAINS
TO LIME NEUTRALIZATION TANK, DWG. 002
PROCESS WATER
FROM PROCESS WATER PUMP DWG 007
FRESH WATER
FROM FRESH WATER TANK DWG. 007
GLAND SEAL WATER
FROM GLAND SEAL PUMP DWG 007
OUTSIDE OF MILL BUILDING
TO SUMP 31T004 DWG 002
MILL DISCHARGE SUMP 21T001
MILL FLOOR SUMP PUMP 21P002
MILL DISCHARGE PUMPS 21P001A & B
LOW POINT DRAIN
LEGEND
MAIN FLOW
NORMAL FLOW
ALTERNATE FLOW
INTERMITTENT FLOW
* BY VENDOR.
OCT 30 1981
LURGI CORPORATION
WESTERN DIVISION
CLIENT
MNR OF NEVADA CORPORATION
MARGARET HILLS
SCALE NONE
TITLE
RECEIVING & GRINDING
PIPING & INSTRUMENTATION DIAGRAM
PROJECT NO. 4011
DRAWING NUMBER 00-D-5-001
REV.


00-D-5-002
SLAKED LIME
FROM MILL DISCHARGE PUMP DWG 001
PROCESS WATER
TO STACK
ELECTROLYTE BLEED
SAMPLER FEED SUMP 31T004
SAMPLER 31Y001
SAMPLE
SET @ 250 PSI
SET @ 200 PSI
SO2 STORAGE TANK 61Y001
SO2 FEED PUMPS 61P001A & B
LIME MIXING TANK 31T005
HCN SCRUBBER 31X001
FAN
AGITATOR 31A001
AGITATOR 31A002
AGITATOR 31A003
SO2 PRETREATMENT TANK NO.1 31T001
SO2 PRETREATMENT TANK NO.2 31T002
SO2 PRETREATMENT TANKS
PACHUCA FEED PUMPS 31P001A&B
SUMP 31T006
LIME NEUTRALIZATION TANK 31T003
FROM L & R COMPRESSORS
LOW POINT DRAIN
COMPRESSED AIR
NEUTRALIZED SLURRY
HCN SOLUTION
GLAND SEAL WATER
FROM SEAL WATER PUMPS 72F002A&B DWG 5-007
VIBRATING SCREEN 31S001
TRAMP METAL CONTAINER 32C001
NO.1 32T001
NO.2 32T002
NO.3 32T003
NO.4 32T004
PACHUCA TANKS
LEACHING CIRCUIT
LEACHING AREA FLOOR SUMP & PUMP 32P001
SO2 PRETREATMENT AREA SUMP & PUMP 31P003
TO C.A. FEED SUMP DWG 003
TO MILL DISCH SUMP 21T001 DWG 4-001
SYMBOLS
GATE VALVE
CHECK VALVE
FLOW CONTROL VALVE
* BY VENDOR.
LEGEND
MAIN FLOW
NORMAL FLOW
ALTERNATE FLOW
INTERMITTENT FLOW
OCT 30 1981
LURGI CORPORATION
WESTERN DIVISION
MNR OF NEVADA CORPORATION
MARGARET HILLS
SCALE NONE
SO2 PRETREATMENT & PACHUCA TANKS PIPING & INSTRUMENTATION DIAGRAM
PROJECT NO 4011
DRAWING NUMBER 00-D-5-002



REV	DATE	D.T.	CLIENT	FIELD	VEND.	M.R.	REMARKS

DRAWING NO.	REFERENCES

REV	DATE	DESCRIPTION	BY	CKD	APPV	CLIENT
4	5-20-82	INSTRUMENTATION UP-DATE	WL			
3	5-4-82	3" LINE WAS 2"	ELW			
2	4-19-82	INSTRUMENT Nos ADDED	WAB			
1	3-10-82	ISSUED FOR CONSTR.	RLL	DCC		

DESIGN BY:
DRAWN BY: Kyle Tapperley
CHECKED BY:
APPROVED-1:
APPROVED-2:
THIS DRAWING IS A PART OF P.D./E.C.

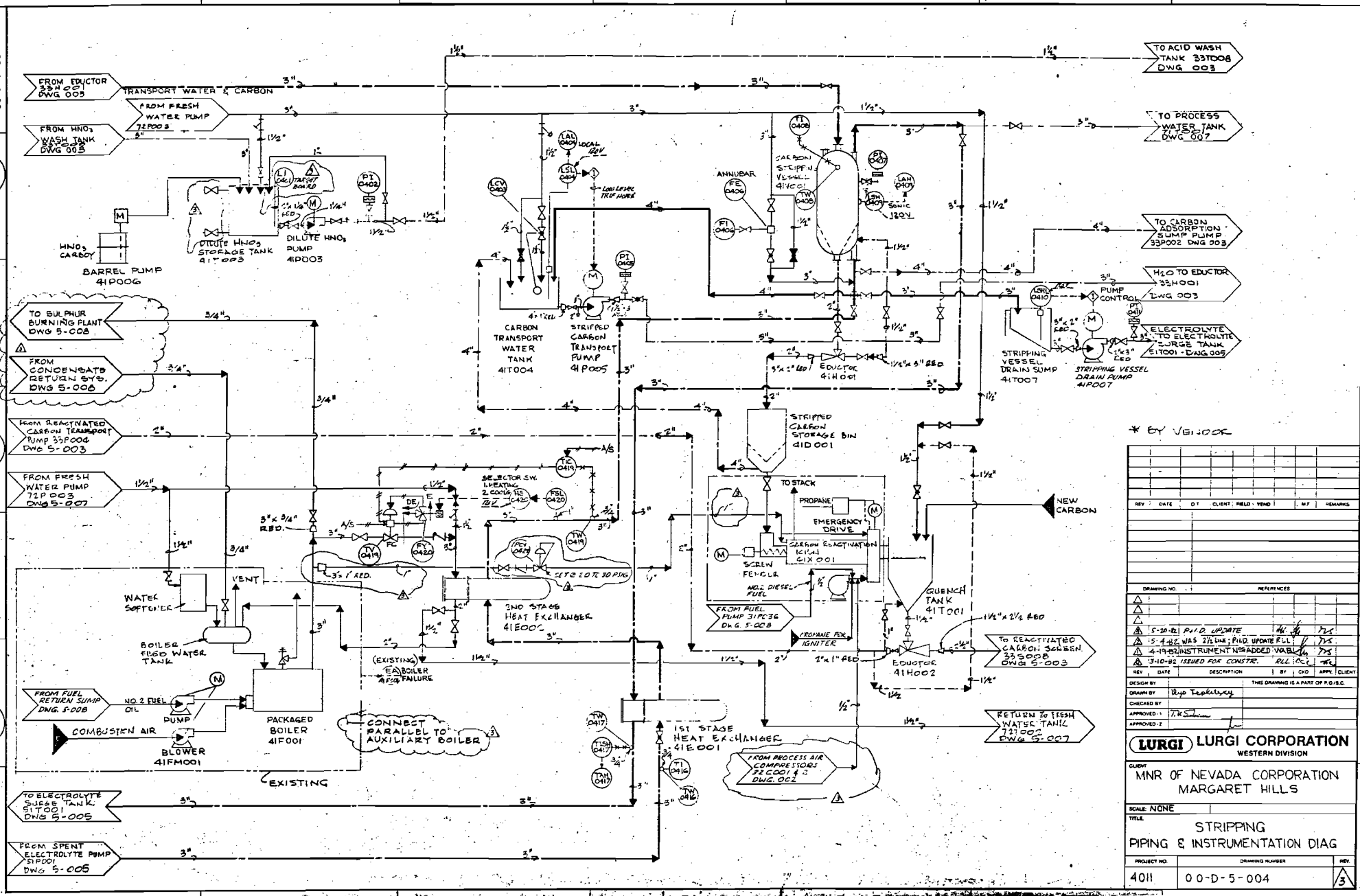
LURGI CORPORATION
WESTERN DIVISION

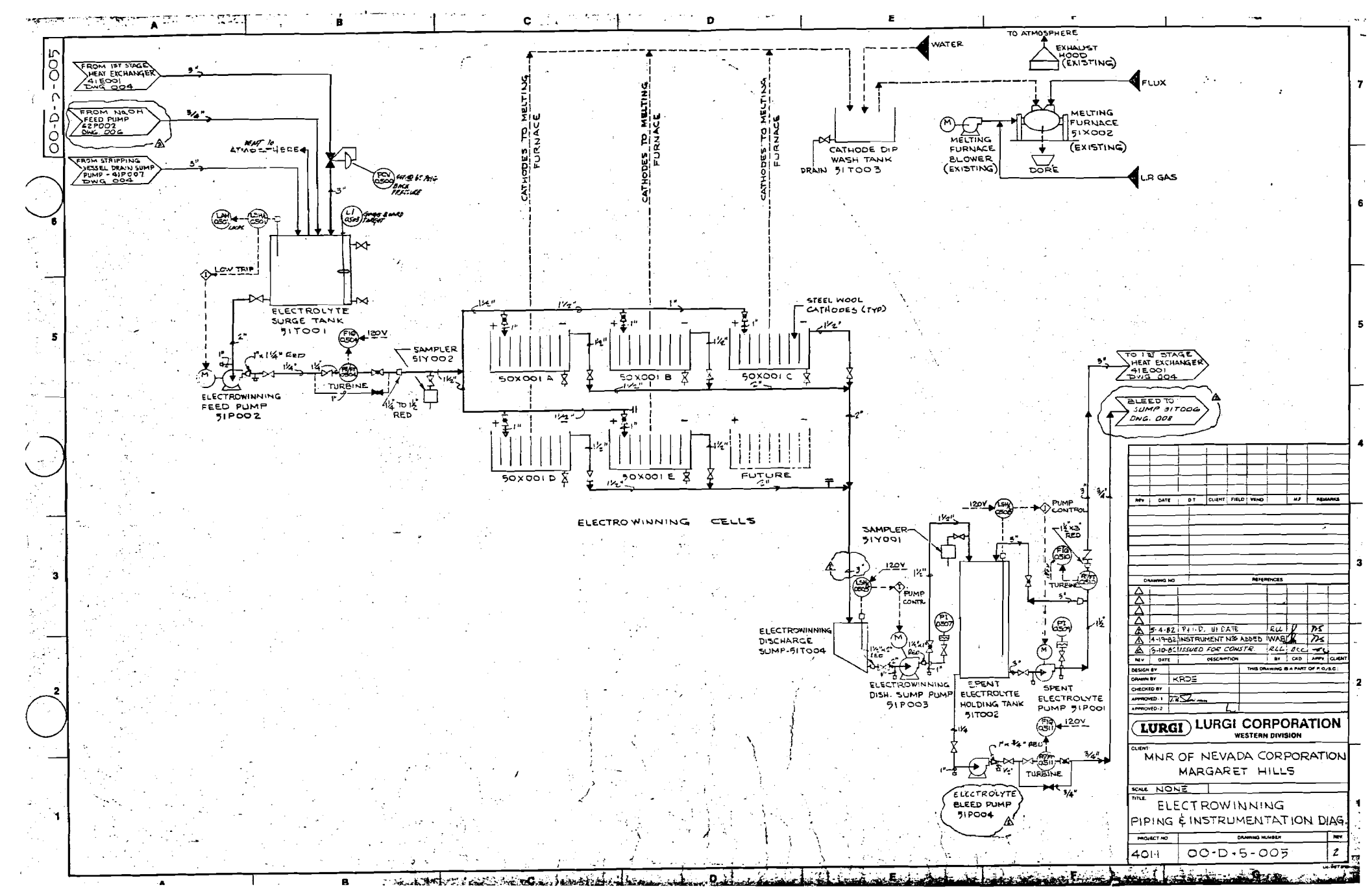
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NONE

TITLE: CARBON ADSORPTION CIRCUIT PIPING & INSTRUMENTATION DIAG

PROJECT NO	DRAWING NUMBER	REV
4011	00-D-5-003	4


FROM EDUCTOR 33H001 DWG 003
TRANSPORT WATER & CARBON
FROM FRESH WATER PUMP 72P003
FROM HNO3 WASH TANK 33T005 DWG 003
TO ACID WASH TANK 33T008 DWG 003
TO PROCESS WATER TANK 72T002 DWG 007
TO CARBON ADSORPTION SUMP PUMP 33P002 DWG 003
H2O TO EDUCTOR 33H001 DWG 003
ELECTROLYTE TO ELECTROLYTE SURGE TANK 51T001 - DWG 005
HNO3 CARBOY
BARREL PUMP 41P006
DILUTE HNO3 STORAGE TANK 41T003
DILUTE HNO3 PUMP 41P003
CARBON STRIPPING VESSEL 41T001
ANNUBAR
CARBON TRANSPORT WATER TANK 41T004
STRIPPED CARBON TRANSPORT PUMP 41P005
EDUCTOR 41H001
STRIPPING VESSEL DRAIN SUMP 41T007
STRIPPING VESSEL DRAIN PUMP 41P007
PUMP CONTROL
TO BULPHUR BURNING PLANT DWG 5-008
FROM CONDENSATE RETURN SYS. DWG 5-008
FROM REACTIVATED CARBON TRANSPORT PUMP 33P004 DWG 5-003
FROM FRESH WATER PUMP 72P003 DWG 5-007
STRIPPED CARBON STORAGE BIN 41D001
TO STACK
PROPANE
EMERGENCY DRIVE
SCREW REACTIVATION 41M001
SCREW FEEDER
NO.2 DIESEL FUEL
NEW CARBON
QUENCH TANK 41T001
EDUCTOR 41H002
TO REACTIVATED CARBON SCREEN 33S008 DWG 5-003
RETURN TO FRESH WATER TANK 72T002 DWG 5-007
FROM FUEL PUMP 31P038 DWG 5-008
PROPANE FOR IGNITER
SELECTOR SW. 1 HEATING 2 COOLING
SET @ 20 TO 30 PSIG
3" x 3/4" RED.
3" x 1" RED.
VENT
WATER SOFTENER
BOILER FEED WATER TANK
2ND STAGE HEAT EXCHANGER 41E002
(EXISTING) BOILER #1 FOR FAILURE
FROM FUEL RETURN SUMP DWG. 5-008
NO. 2 FUEL OIL
PUMP
COMBUSTION AIR
BLOWER 41FM001
PACKAGED BOILER 41F001
CONNECT PARALLEL TO AUXILIARY BOILER
EXISTING
1ST STAGE HEAT EXCHANGER 41E001
FROM PROCESS AIR COMPRESSORS 32C001 & 2 DWG. 002
TO ELECTROLYTE SURGE TANK 51T001 DWG 5-005
FROM SPENT ELECTROLYTE PUMP 51P001 DWG 5-005
* BY VENDOR
LURGI CORPORATION
WESTERN DIVISION
CLIENT MNR OF NEVADA CORPORATION MARGARET HILLS
SCALE NONE
TITLE STRIPPING PIPING & INSTRUMENTATION DIAG
PROJECT NO. 4011
DRAWING NUMBER 00-D-5-004
REV. 3
00-D-5-004



REV	DATE	BY	CLIENT	FIELD	VEND	M.F	REMARKS

DRAWING NO	REFERENCES

REV	DATE	DESCRIPTION	BY	CKD	APP'D	CLIENT
1	5-4-82	P+I.D. UPDATE	RLL			TMS
2	4-19-82	INSTRUMENT NOS ADDED	WAB			TMS
3	5-10-82	ISSUED FOR CONSTR.	RLL	BCC		

DESIGN BY
DRAWN BY: KRDE
CHECKED BY
APPROVED-1
APPROVED-2
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LURGI CORPORATION
WESTERN DIVISION

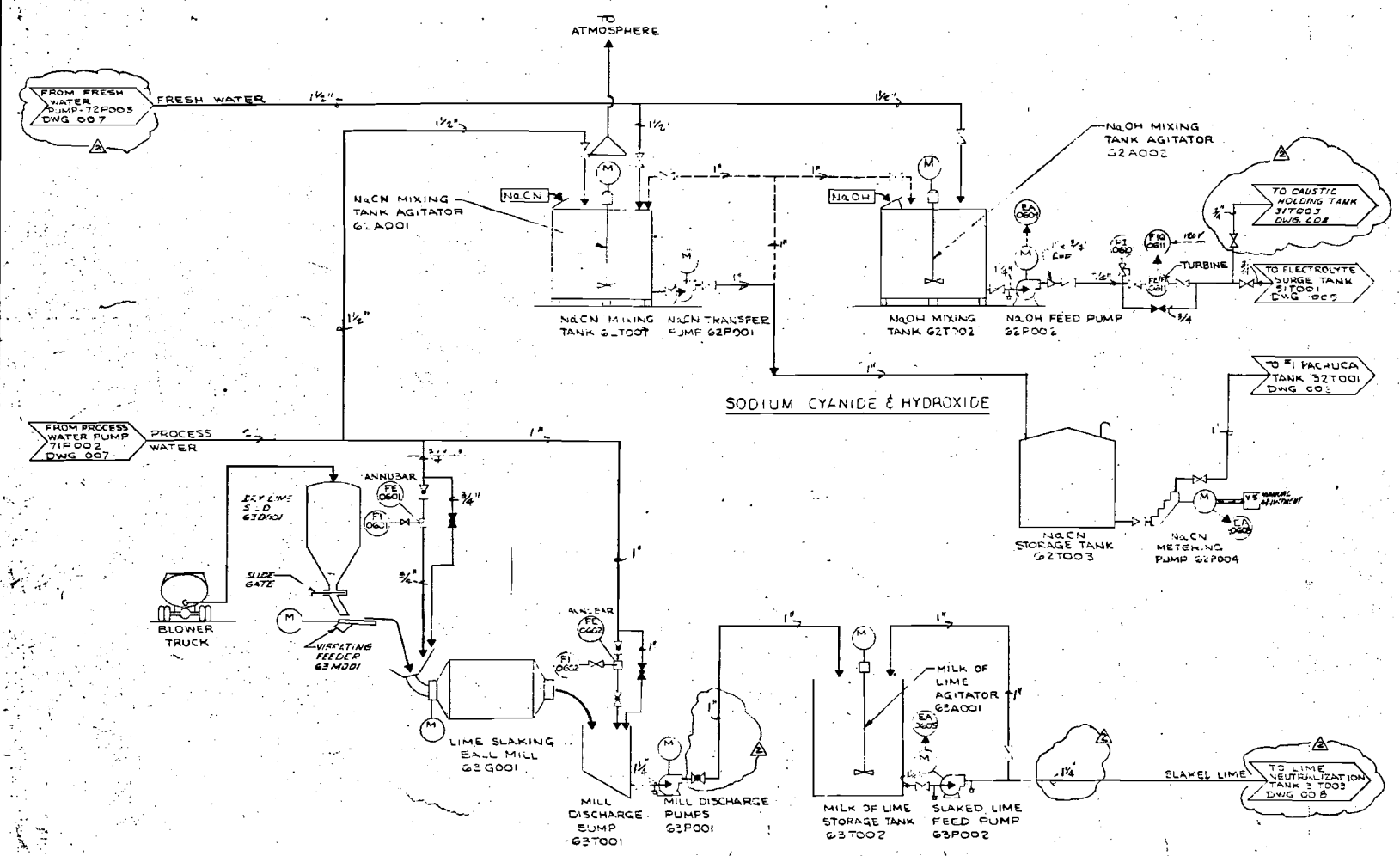
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NONE

TITLE: ELECTROWINNING
PIPING & INSTRUMENTATION DIAG.

PROJECT NO	DRAWING NUMBER	REV
4011	00-D-5-005	2

ANCILLARY EQUIPMENT
HOIST G2M001



LEGEND
- MAIN FLOW
- NORMAL FLOW
- ALTERNATE FLOW
- INTERMITTENT FLOW

STREAM NO.	1	2	3	4	5	6	7	8	9	10
SOLIDS TPH										
LIQUOR TPH										
PULP GPM										
PULP S.G.										
% SOLIDS										

① 1% NaOH & 1% NaCN

*V BY VENDOR

REV	DATE	BY	CLIENT / FIELD / VENDOR	M.F.	REMARKS

DRAWING NO	REFERENCES

REV	DATE	DESCRIPTION	BY	CKD	APPV	CLIENT
3	5-4-82	P.I.D. UPDATE	RLL		MS	
2	4-19-82	INSTRUMENT NOS ADDED WABA			MS	
1	3-10-82	ISSUED FOR CONSTR.	RLL	DC	MS	

DESIGN BY
DRAWN BY: MDE
CHECKED BY
APPROVED 1: T.W.S.
APPROVED 2
THIS DRAWING IS A PART OF P.O. I.S.C.

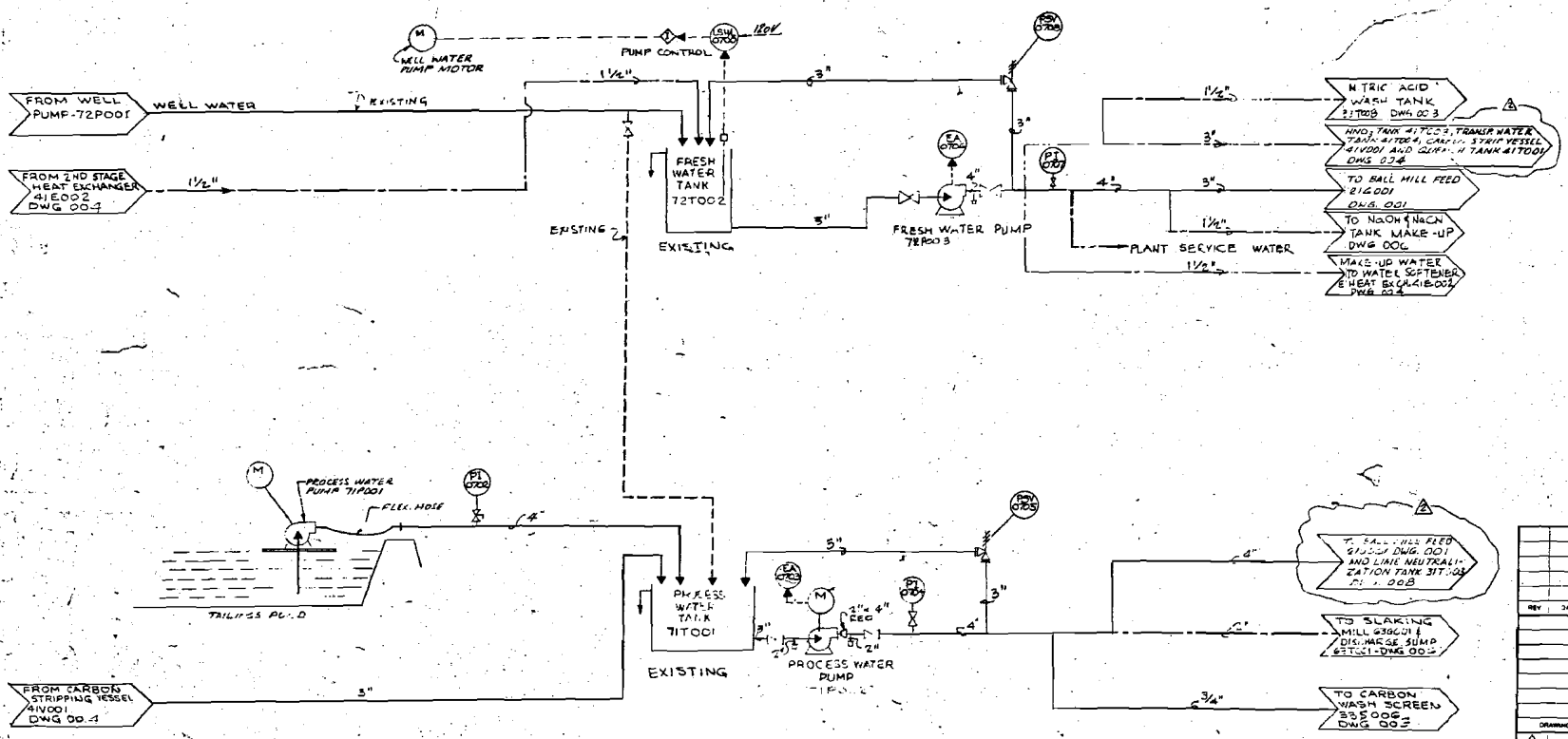
LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NONE

TITLE: REAGENT HANDLING PIPING [illegible]

PROJECT NO	DRAWING NUMBER	REV.
4011	00-D-S-006	2



LEGEND

- MAIN FLOW
- NORMAL FLOW
- ALTERNATE FLOW
- INTERMITTENT FLOW

STREAM NO.	1 MIN	1 MAX	2	3	4	5	6 MIN	6 MAX	7 MIN	7 MAX
SOLIDS TPH										
LIQUOR TPH										
PULP GPM										
PULP SG										
% SOLIDS										

REV	DATE	BY	CHD	APP'D	CLIENT
1	5-7-82 P&I.D UPDATE	RLL			
2	4-19-82 INSTRUMENTS ADDED	WAB			
3	3-10-82 ISSUED FOR CONSTR.	RLL			

DESIGN BY
DRAWN BY
CHECKED BY
APPROVED-1
APPROVED-2

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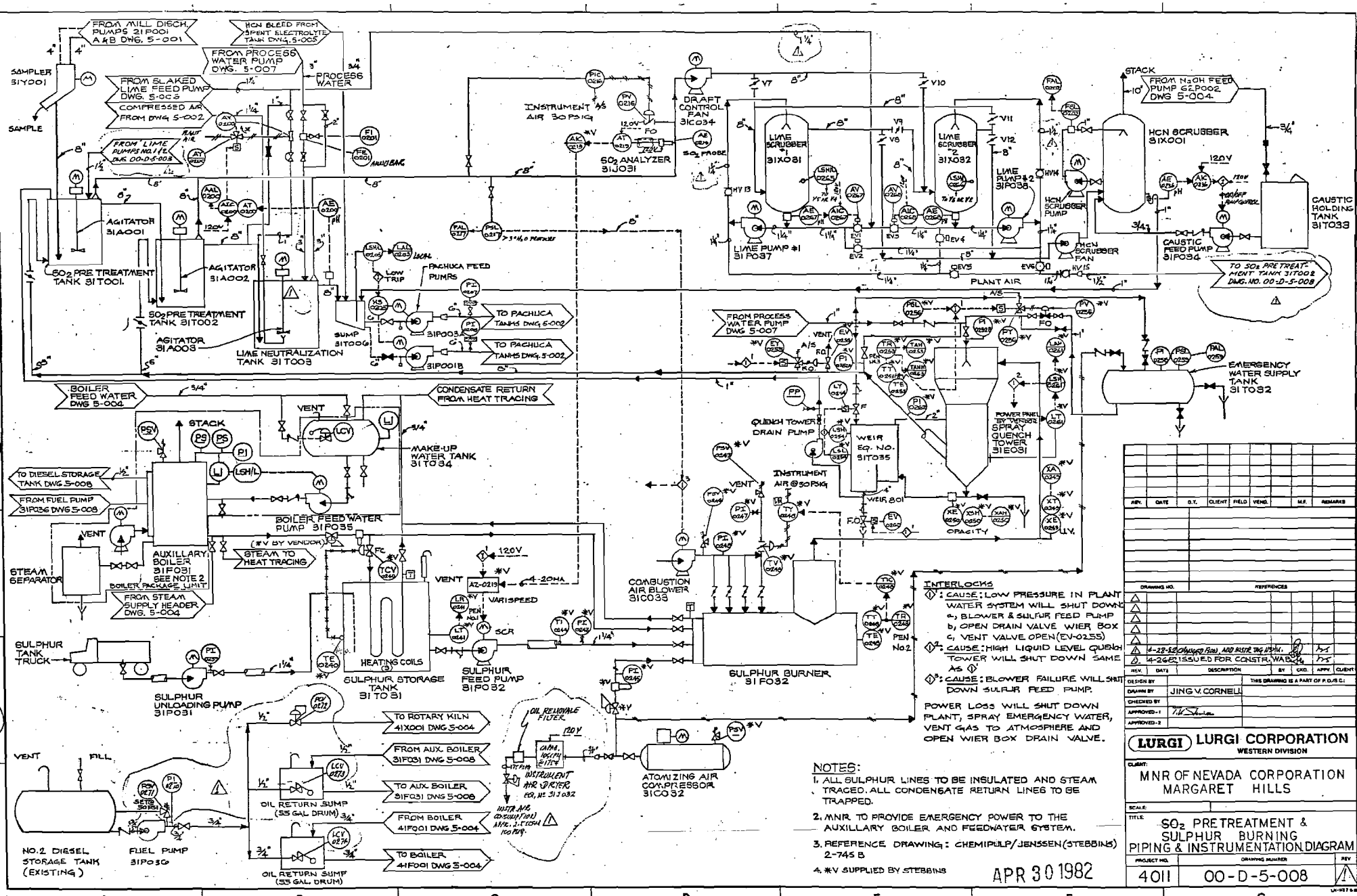
LURGI CORPORATION
WESTERN DIVISION

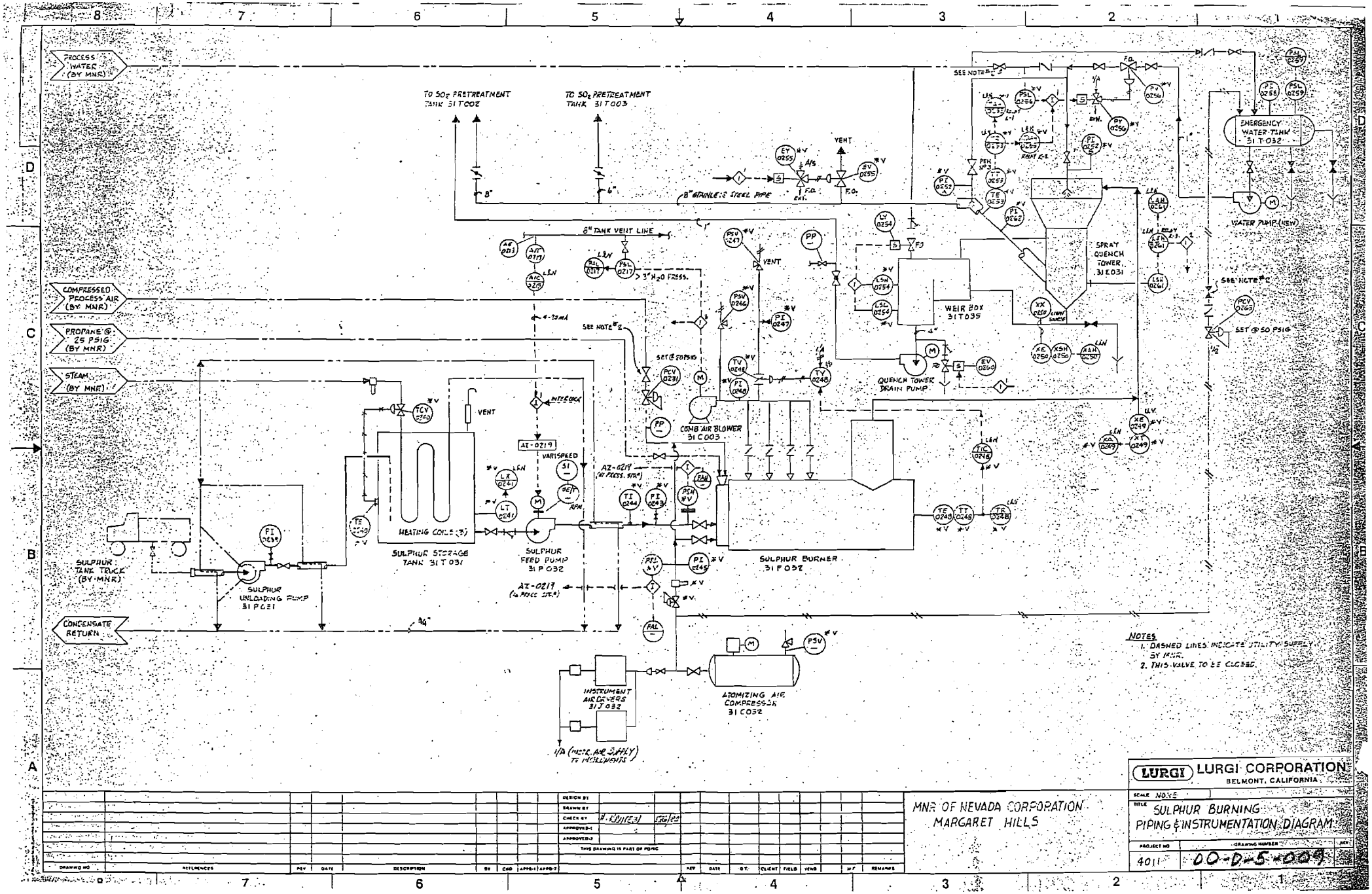
CLIENT
MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE NONE

TITLE
PROCESS, FRESH & FIRE WATER
PIPING & INSTRUMENT DIAGRAM

PROJECT NO.	DRAWING NUMBER	REV.
4011	00-D-5-007	2


00-D-5-008
FROM MILL DISCH. PUMPS 21P001 A&B DWG. 5-001
HCN BLEED FROM SPENT ELECTROLYTE TANK DWG. 5-005
FROM PROCESS WATER PUMP DWG. 5-007
PROCESS WATER
SAMPLER 31Y001
SAMPLE
FROM SLAKED LIME FEED PUMP DWG. 5-003
COMPRESSED AIR FROM DWG. 5-002
FROM LIME PUMPS NO.1 & 2 DWG. 00-D-5-008
AGITATOR 31A001
SO2 PRE TREATMENT TANK 31T001
AGITATOR 31A002
SO2 PRE TREATMENT TANK 31T002
AGITATOR 31A003
LIME NEUTRALIZATION TANK 31T003
SUMP 31T006
PACHUCA FEED PUMPS
31P003
31P001B
TO PACHUCA TANKS DWG. 5-002
TO PACHUCA TANKS DWG. 5-002
INSTRUMENT AIR 30 PSIG
SO2 ANALYZER 31J031
DRAFT CONTROL FAN 31C034
LIME SCRUBBER #1 31X031
LIME SCRUBBER #2 31X032
LIME PUMP #1 31P037
LIME PUMP #2 31P038
HCN SCRUBBER PUMP
HCN SCRUBBER FAN
PLANT AIR
STACK
FROM NaOH FEED PUMP 62.P002 DWG 5-004
HCN SCRUBBER 31X001
CAUSTIC FEED PUMP 31P034
CAUSTIC HOLDING TANK 31T033
TO SO2 PRETREATMENT TANK 31T002 DWG. NO. 00-D-5-008
FROM PROCESS WATER PUMP DWG 5-007
EMERGENCY WATER SUPPLY TANK 31T032
BOILER FEED WATER DWG 5-004
CONDENSATE RETURN FROM HEAT TRACING
STACK
VENT
MAKE-UP WATER TANK 31T034
TO DIESEL STORAGE TANK DWG 5-008
FROM FUEL PUMP 31P036 DWG 5-008
BOILER FEED WATER PUMP 31P035
AUXILLARY BOILER 31F031 SEE NOTE 2
BOILER PACKAGE LIMIT
FROM STEAM SUPPLY HEADER DWG. 5-004
STEAM TO HEAT TRACING
STEAM SEPARATOR
QUENCH TOWER DRAIN PUMP
WEIR EQ. NO. 31T035
SPRAY QUENCH TOWER 31E031
INSTRUMENT AIR @ 30 PSIG
WEIR 801
OPACITY
COMBUSTION AIR BLOWER 31C033
SULPHUR TANK TRUCK
SULPHUR UNLOADING PUMP 31P031
SULPHUR STORAGE TANK 31T031
HEATING COILS (3)
SULPHUR FEED PUMP 31P032
SULPHUR BURNER 31F032
VARISPEED
SCR
PEN No.1
PEN No.2
TO ROTARY KILN 41X001 DWG 5-004
FROM AUX. BOILER 31F031 DWG 5-008
TO AUX. BOILER 31F031 DWG 5-008
FROM BOILER 41F001 DWG 5-004
TO BOILER 41F001 DWG 5-004
OIL REMOVABLE FILTER
INSTRUMENT AIR DRYER
ATOMIZING AIR COMPRESSOR 31C032
OIL RETURN SUMP (55 GAL DRUM)
OIL RETURN SUMP (55 GAL. DRUM)
VENT
FILL
NO.2 DIESEL STORAGE TANK (EXISTING)
FUEL PUMP 31P036
INTERLOCKS
1: CAUSE: LOW PRESSURE IN PLANT WATER SYSTEM WILL SHUT DOWN a, BLOWER & SULFUR FEED PUMP b, OPEN DRAIN VALVE WIER BOX c, VENT VALVE OPEN (EV-0235)
2: CAUSE: HIGH LIQUID LEVEL QUENCH TOWER WILL SHUT DOWN SAME AS 1
3: CAUSE: BLOWER FAILURE WILL SHUT DOWN SULFUR FEED PUMP.
POWER LOSS WILL SHUT DOWN PLANT, SPRAY EMERGENCY WATER, VENT GAS TO ATMOSPHERE AND OPEN WIER BOX DRAIN VALVE.
NOTES:
1. ALL SULPHUR LINES TO BE INSULATED AND STEAM TRACED. ALL CONDENSATE RETURN LINES TO BE TRAPPED.
2. MNR TO PROVIDE EMERGENCY POWER TO THE AUXILLARY BOILER AND FEEDWATER SYSTEM.
3. REFERENCE DRAWING: CHEMIPULP/JENSSEN (STEBBINS) 2-745 B
4. *V SUPPLIED BY STEBBINS
APR 30 1982
REV. DATE DESCRIPTION BY CKD. APPV. CLIENT
1 4-28-82 CHANGED FLOW AND NOTE TAG NOS. JVC
2 4-26-82 ISSUED FOR CONSTR. WAB
DESIGN BY
DRAWN BY JING V. CORNELL
CHECKED BY
APPROVED-1
APPROVED-2
THIS DRAWING IS A PART OF P.O./S.C.:
LURGI LURGI CORPORATION
WESTERN DIVISION
CLIENT: MNR OF NEVADA CORPORATION MARGARET HILLS
SCALE:
TITLE: SO2 PRETREATMENT & SULPHUR BURNING PIPING & INSTRUMENTATION DIAGRAM
PROJECT NO. 4011
DRAWING NUMBER 00-D-5-008
REV. 2
A B C D E F G



LURGI LURGI CORPORATION
BELMONT, CALIFORNIA

MNR OF NEVADA CORPORATION
MARGARET HILLS

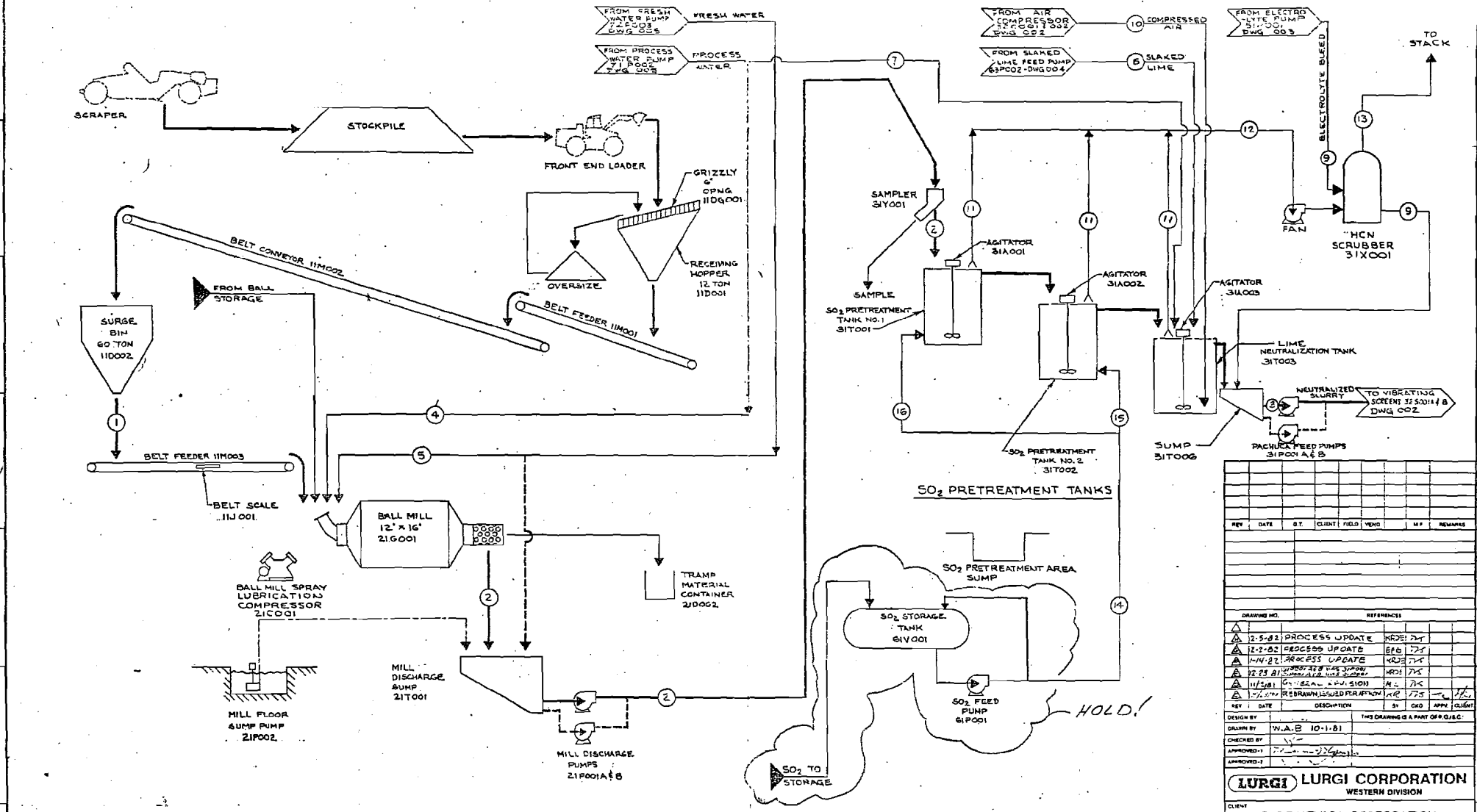
SCALE NONE

TITLE SULPHUR BURNING PIPING & INSTRUMENTATION DIAGRAM

PROJECT NO 4011

DRAWING NUMBER 00-D-5-009

REV



FLOW NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
SOLIDS TPH	56.6	56.6	56.6			0.525																				
LIQUOR TPH	4.9	55.8	69.2	6.3	17.2	2.1	36.2		0.2					10.9					44.3							
PULP GPM		103.5	360.1	35.4	68.5	9.4	65.4		0.7					1.8					176.9							
PULP SG		1.89	1.90			1.11								1.93												
% SOLIDS	92	50	65			20																				
									65 ACCEPTING PAN	1	53 CYCLONE	1890 CYCLONE			①	②	81 MESH	430 MESH								

① AS NEEDED

ANCILLARY EQUIPMENT:

MILL BUILDING CRANE 21MC01

LEGEND

- MAIN FLOW
- NORMAL FLOW
- ALTERNATE FLOW
- INTERMITTENT FLOW

REV	DATE	BY	CLIENT	FIELD	VEND		M.P.	REMARKS

DRAWING NO.	REFERENCES

REV	DATE	DESCRIPTION	BY	CKD	APPR	CLIENT
A	2-5-82	PROCESS UPDATE	KRDS	JHT		
A	12-2-82	PROCESS UPDATE	EPB	JHT		
A	1-14-82	PROCESS UPDATE	KRDS	JHT		
A	12-29-81	SUPPORT 32 & 33 MS SUPPORT, SUMP 61 & 62 SUPPORT	KRDS	JHT		
A	11/5/81	GENERAL REVISION	M.L.	JHT		
A	10/6/81	REDRAWN, ISSUED FOR APPROVAL	KRP	JHT	—	JHT

DESIGN BY	THIS DRAWING IS A PART OF P.D.&.C.
DRAWN BY	W.A.B 10-1-81
CHECKED BY	
APPROVED-1	
APPROVED-2	

LURGI CORPORATION
WESTERN DIVISION

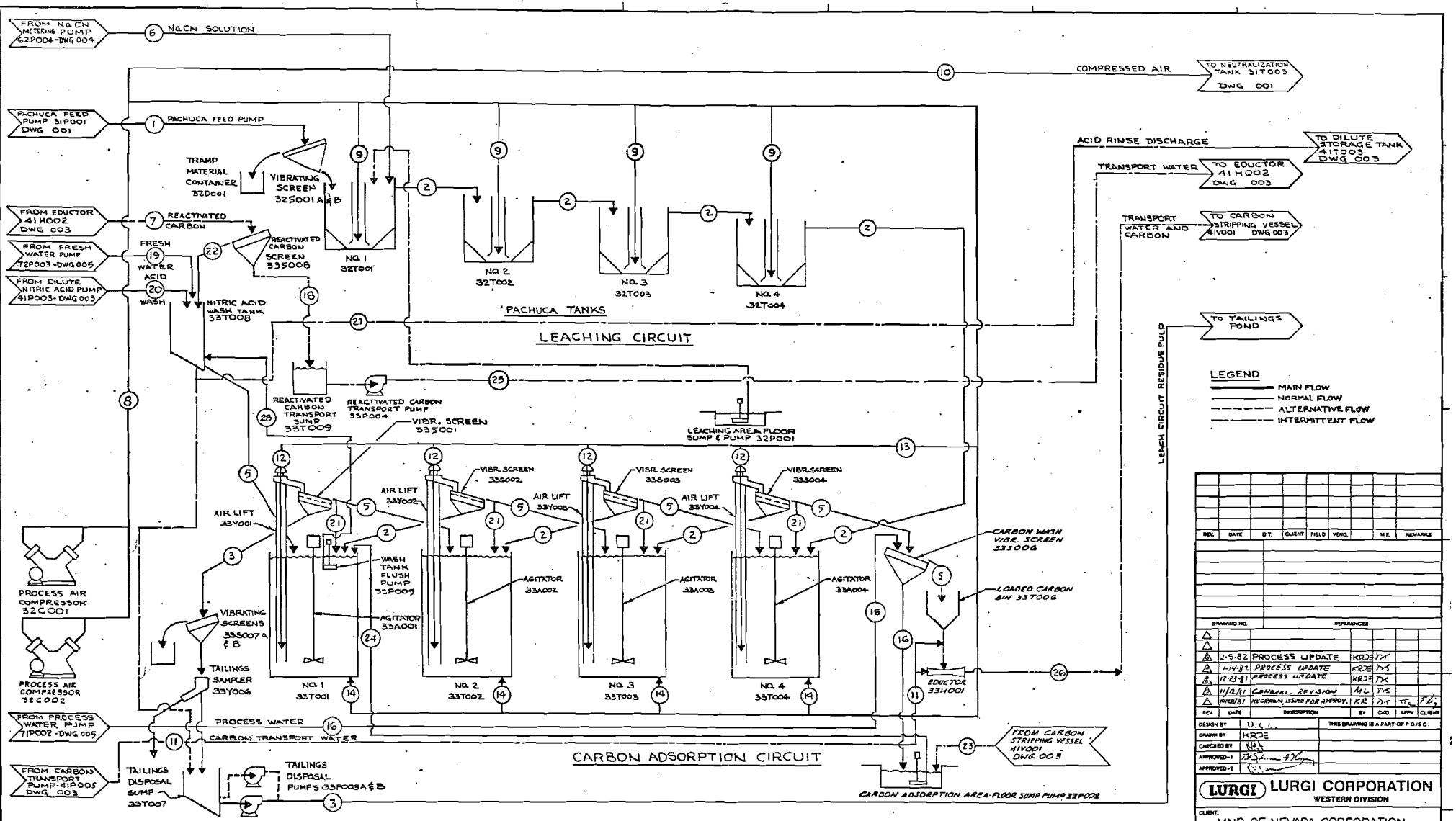
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NONE

TITLE: RECEIVING, GRINDING & SO_2 PRETREATMENT PROCESS FLOW DIAGRAM

PROJECT NO.	DRAWING NUMBER	REV
4011	00-D-4-001	H

00-D-4-001



Flow No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Solids TPH	56.6	56.6	56.6		0.262		4.524														2.4	0.524				1.7		
Liquor TPH	69.2	6[illegible]	72.1		0.4	0.4	18.0				28.0					1.0		17.5	5	5	3.7	0.8	35	26	17.6	29.7	10	
Pulp GPM	360.7	366.4	374.4			1.6	72.0				112.0					4.0		70	80	80			100	104	70.0	112.0	40	20
Pulp SG	1.40	1.40	1.37			1.1																						1.37
% Solids	45	45	43				40														40							43
					40% Carbon	NaCN 20% Sol	12 HRS Flow	2210 ACFM	300 ACFM	50 ACFM		8.5 ACFM	100 ACFM	15 ACFM				4 HR FLOW			40% Carbon	12 HRS	4.5 NEEDED						

NOTE MAXIMUM VALVE

REV.	DATE	D.T.	CLIENT	FIELD	VEND.		M.F.	REMARKS

DRAWING NO.	REFERENCES

REV.	DATE	DESCRIPTION	BY	CKD.	APPV	CLIENT
A	2-5-82	PROCESS UPDATE	KRDE	TMS		
A	1-14-82	PROCESS UPDATE	KRDE	TMS		
A	12-23-81	PROCESS UPDATE	KRDE	TMS		
A	11/12/81	CARBON REVISION	AJC	TMS		
A	11/6/81	PROGRAM, ISSUED FOR APPROV.	KR	TMS	TMS	TMS

DESIGN BY	[illegible]
DRAWN BY	KRDE
CHECKED BY	[illegible]
APPROVED-1	TMS
APPROVED-2	

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LURGI CORPORATION
WESTERN DIVISION

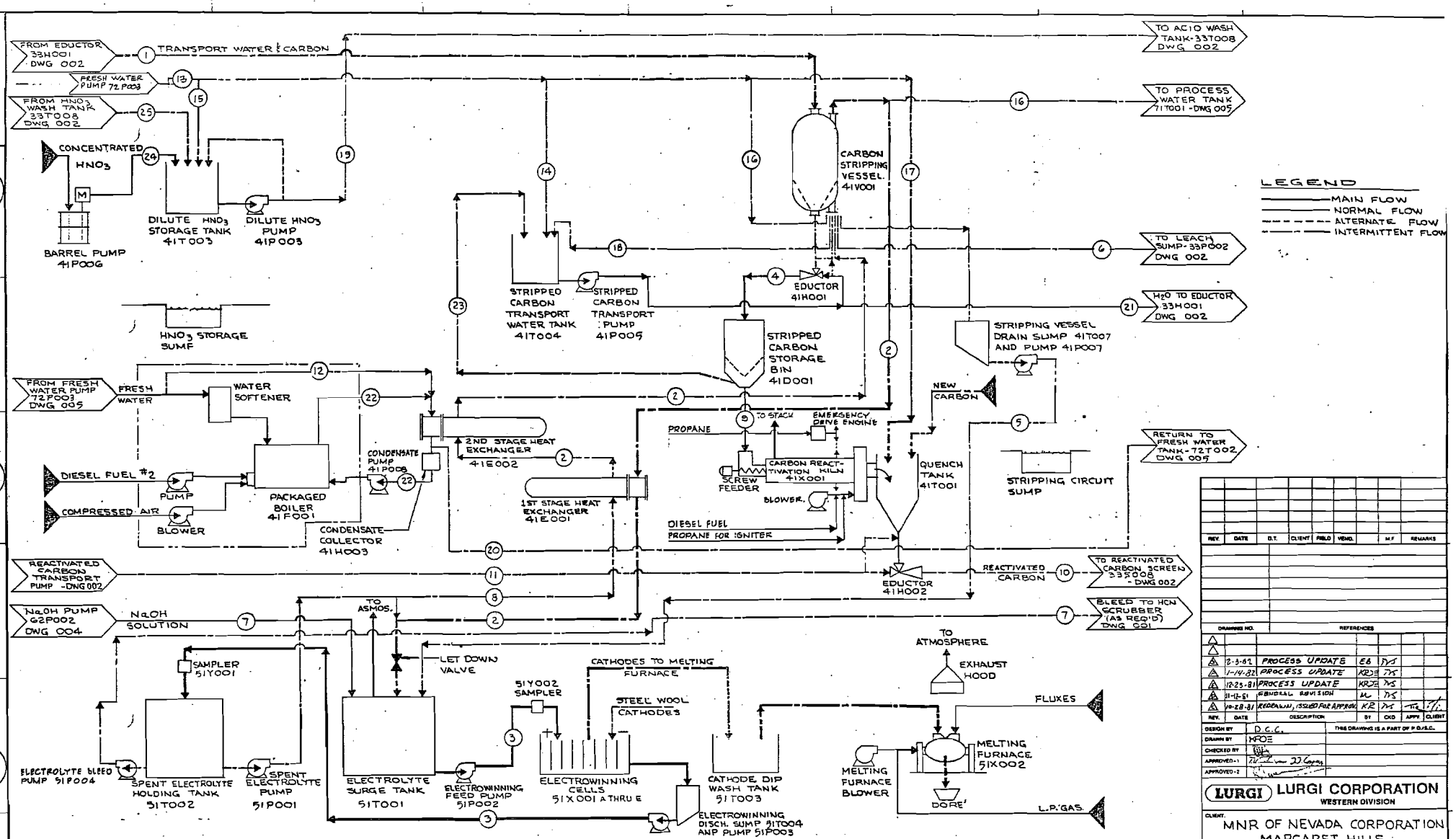
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE NONE

TITLE: LEACHING PROCESS FLOW DIAGRAM

PROJECT NO.	DRAWING NUMBER	REV.
4011	00-D-4-002	G

00-D-4-002



FLOW NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
SOLIDS TPH	1.7			1.7					0.262	0.524																				
LIQUOR TPH	29.7	21.6	8.6	29.7	25	25	0.2	21.8	0.4	18	17.6	5	25	5	5	21.4	5	28	5	5	23		23		10					
PULP GPM	112.0	35.5	34.2	112.0	100	100	0.7	86.2		72	70	20	100	20	20	89.5	20	112	20	20	112	4	112		40					
PULP SG		1.01	1.01																											
% SOLIDS																														
	(1)			(1)	(3)	(3)				(4)	(4)	(3)	(3)	(3)	(3)	(3)	(3)	(1)	(3)	(3)	(1)	(5)	(1)		(2)					

(1) 4 HR FLOW (3) AS NEEDED (4) 12 HR. FLOW (5) 2000 LB/HR. STEAM

REV.	DATE	DESCRIPTION	BY	CKD	APPV	CLIENT
2	2-3-82	PROCESS UPDATE	EB	JVS		
1	1-14-82	PROCESS UPDATE	KRJE	JVS		
A	12-25-81	PROCESS UPDATE	KRJE	JVS		
A	11-12-81	GENERAL REVISION	KL	JVS		
A	10-28-81	REDRAWN, ISSUED FOR APPROV.	KR	JVS	TTE	T.T.

DESIGN BY: D.C.C.
DRAWN BY: KRJE
CHECKED BY:
APPROVED-1:
APPROVED-2:
THIS DRAWING IS A PART OF P.D.S.C.

LURGI LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION MARGARET HILLS

SCALE: NONE

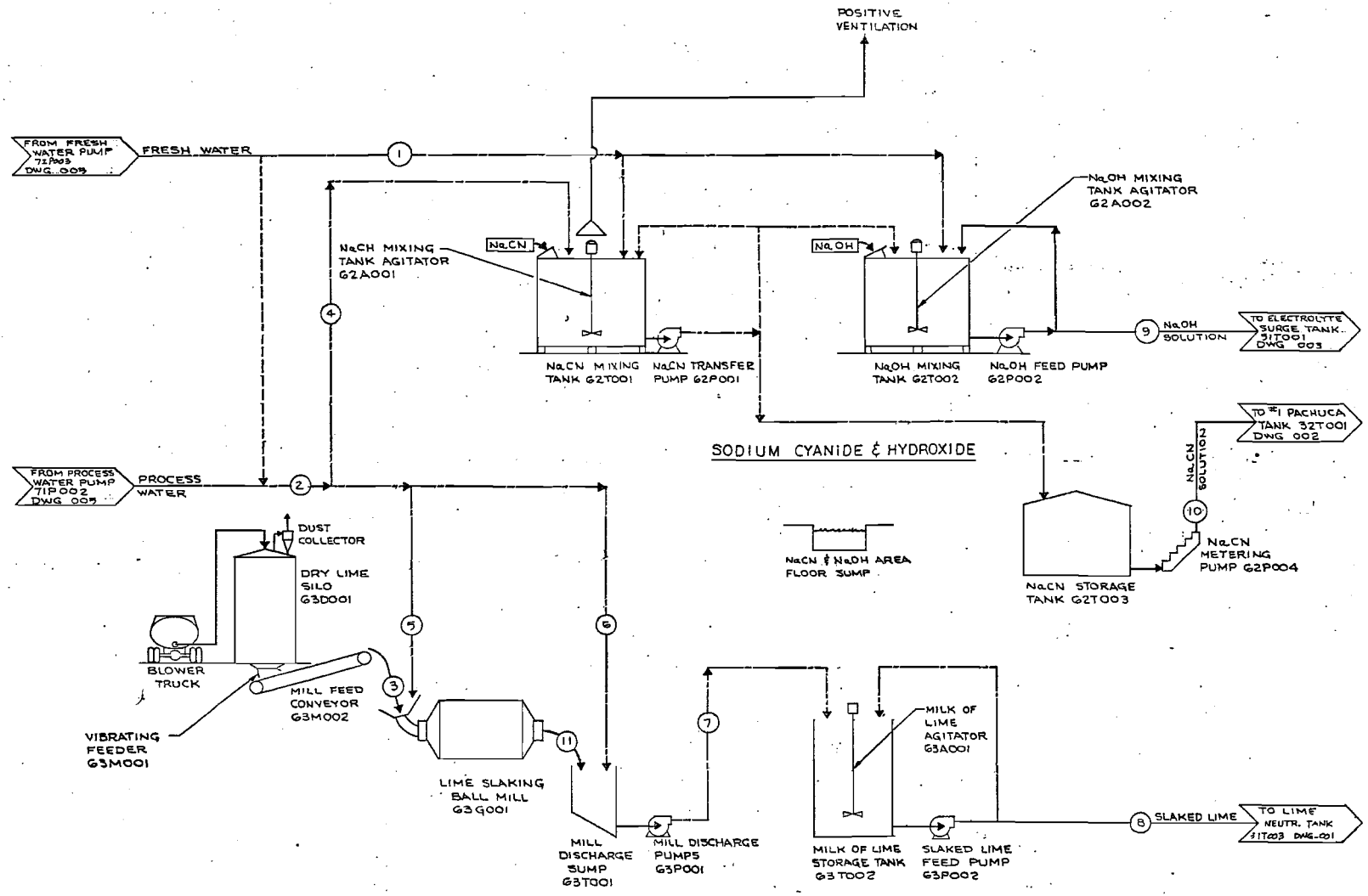
TITLE: STRIPPING AND ELECTROWINNING PROCESS FLOW DIAGRAM

PROJECT NO.	DRAWING NUMBER	REV.
4011	00-D-4-003	G

00-D-4-003

00-D-4-004

ANCILLARY EQUIPMENT
HOIST G2M001



LEGEND
- MAIN FLOW
- NORMAL FLOW
- ALTERNATE FLOW
- INTERMITTENT FLOW

STREAM NO.	1	2	3	4	5	6	7	8	9	10	11
SOLIDS TPH			2.38				3.14	0.525			3.14
LIQUOR TPH	5	15		10	1.90	11.38	12.52	2.1	0.17	0.60	1.18
PULP GPM	20	50		40	7.77	45.52	56.32	5.42	0.70	2.17	10.75
PULP S.G.							1.115	1.115		1.10	1.6
% SOLIDS							20	20			73
	T.	②	③	②	③	②	①			④	

① AS NEEDED ② AS NEEDED ③ DAY SHIFT MAKE-UP 4 l/s ④ 20% CN CONCENTRATE ⑤ AS NEEDED 1.5 hr/DAY ⑦ % SOLIDS AS $Ca[OH]_2$ ⑧ NOTE: FLOW ② SHOWS MAXIMUM NEEDED 24 HRS AVERAGE 23.0 GPM

REV.	DATE	BY	CLIENT	FIELD	VEND.		M.F	REMARKS

DRAWING NO. | REFERENCES

REV	DATE	DESCRIPTION	BY	CKD.	APPR.	CLIENT
1	1-14-82	PROCESS UPDATE	KRDE	TVS		
2	12-23-81	PROCESS UPDATE	KRDE	TVS		
3	11-11-81	GENERAL REVISION	KR	TVS		
4	10-28-81	REVISION, ISSUED FOR APPROVAL	KR	TVS	DR	

DESIGN BY D.C.C.
DRAWN BY KRDE
CHECKED BY
APPROVED-1
APPROVED-2

THIS DRAWING IS A PART OF P.O./E.C.:

LURGI CORPORATION
WESTERN DIVISION

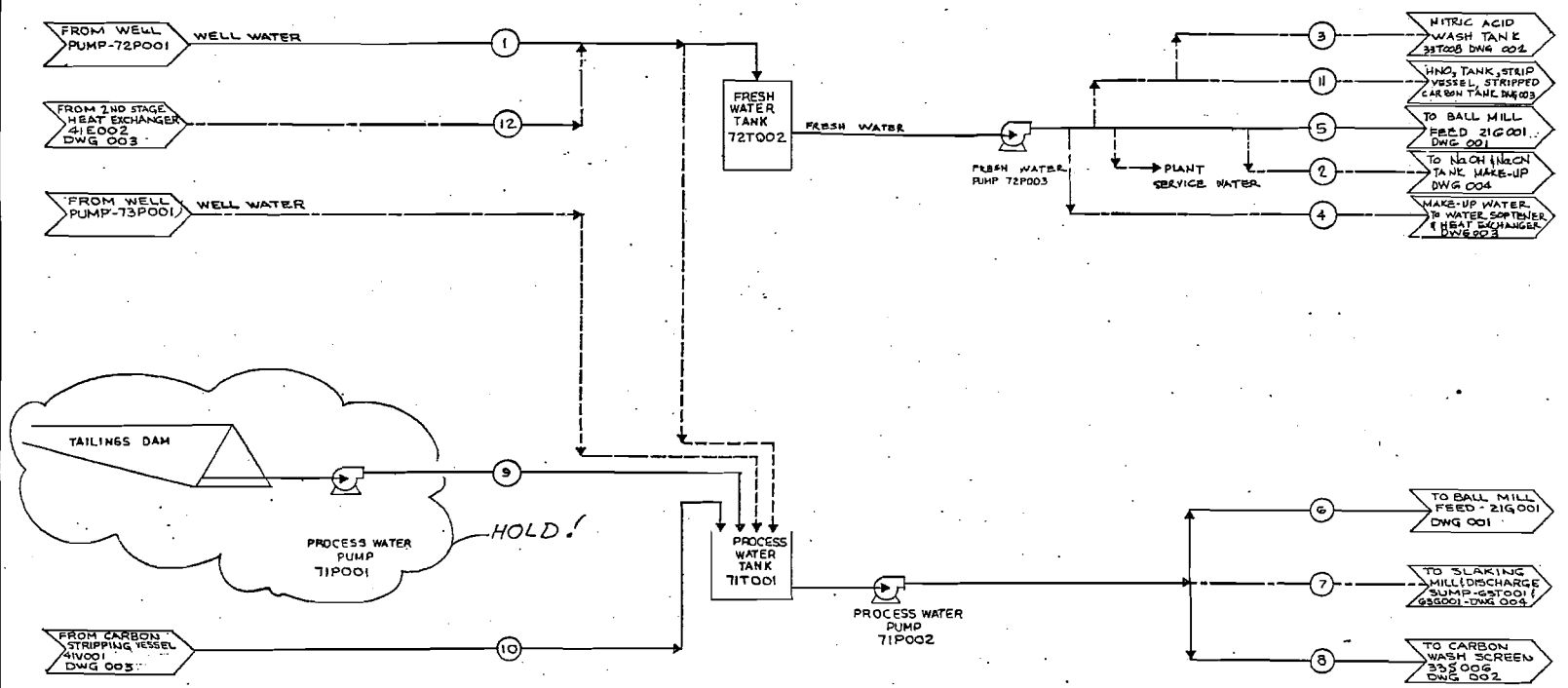
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NONE

TITLE: REAGENT HANDLING PROCESS FLOW DIAGRAM

PROJECT NO.	DRAWING NUMBER	REV.
4011	00-D-4-004	F

00-D-4-005



LEGEND

- MAIN FLOW
- NORMAL FLOW
- ALTERNATE FLOW
- ITERMITTENT FLOW

NOTE:
FLOWS 6 AND 9 ARE AT MAXIMUM VALUES (DURING DAY SHIFT)
AVERAGE VALUES ARE LOWER

STREAM NO.	1	2	3	4	5	6	7	8	9	10	11	12
SOLIDS TPH												
LIQUOR TPH	50	5	5	5	17.2	44.3	15	1.0	58.1	21.4	25	5
PULP GPM	200	20	20	20	±9.8	176.9	60	4.0	232.5	85.5	100	20
PULP SG												
% SOLIDS												
	(1)	(2)	(2)	(2)			(2)		(2)	(2)	(2)	(2)

(1) VARIES (2) AS NEEDED

REV.	DATE	D.T.	CLIENT	FIELD	VEND.		M.F	REMARKS

DRAWING NO.	REFERENCES

REV.	DATE	DESCRIPTION	BY	CKD	APPV	CLIENT
4	1-14-82	PROCESS UPDATE	KRE	TMS		
3	11-12-81	GENERAL REVISION	ML	TMS		
2	10-28-81	REDRAWN, ISSUED FOR APPROVAL	KR	TMS	TMS	
1						

DESIGN BY	D.C.C.
DRAWN BY	KRE
CHECKED BY	
APPROVED-1	
APPROVED-2	

THIS DRAWING IS A PART OF P.O./S.C.:

LURGI CORPORATION
WESTERN DIVISION

CLIENT:
MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NONE

TITLE:
PROCESS, FRESH & FIRE WATER
PROCESS FLOW DIAGRAM

PROJECT NO.	DRAWING NUMBER	REV.
4011	00-D-4-005	E

00-D-04-050

REV.	DATE	D.T.	CLIENT	FIELD	VEND		M.P.	REMARKS

DRAWING NO. REFERENCES

REV	DATE	DESCRIPTION	BY	CKD.	APPV.	CLIENT
4						
3						
2	1-21-82	GEN'L REV	EG			
1	12-16-81	GENL. REV.	RLL			
0	11-11-81	REVISED 24' BELT CONV.	RLL			
A	10-6-81	REVISED RECEIVING HOPPER	RLL			
A	9-25-81	ISSUED FOR APPROVAL	RLL			

DESIGN BY
DRAWN BY KRDE
CHECKED BY
APPROVED-1
APPROVED-2

THIS DRAWING IS A PART OF P.O. I.S.C.

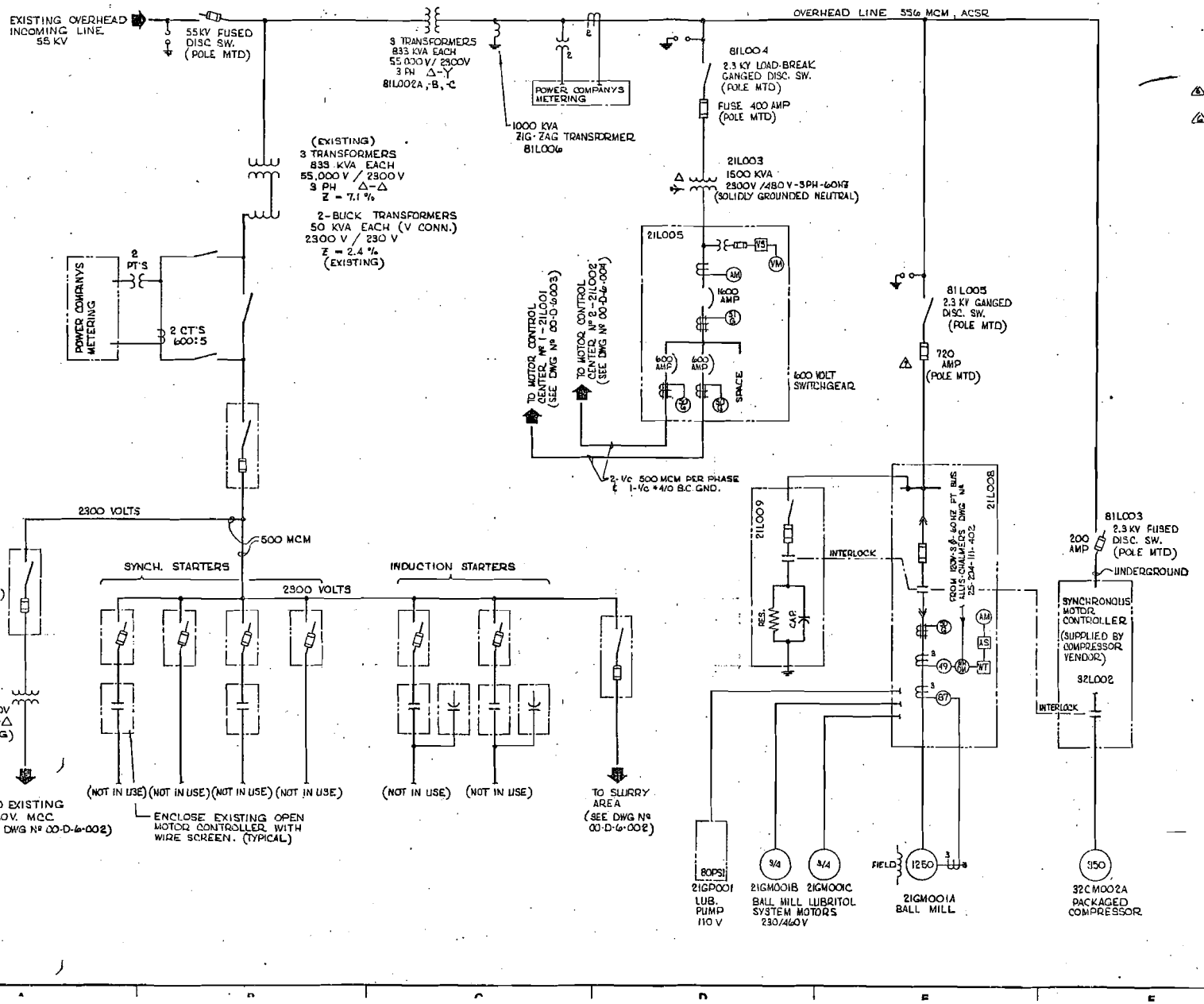
LURGI CORPORATION
WESTERN DIVISION

CLIENT
MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE 1"=20'-0"

TITLE
PLOT PLAN

PROJECT NO.	DRAWING NUMBER	REV
4011	00-D- 4-050	F



NOTES

1. FOR ZIG-ZAG TRANSFORMER CONNECTION, SEE VENDOR INSTRUCTION.
2. CONNECTION OF REVENUE METERING BY SIERRA PACIFIC POWER CO.

REV.	DATE	D.T.	CLIENT	FIELD	VEND		M.P.	REMARKS

DRAWING NO	REFERENCES	
11-15-82	GEN. REVISION OF DWG.	JP
1-7-82	REVISED AS NOTED	JW
3-19-82	O/H LINE DETAILS	JW
1-22-82	FOR PURCHASE	JW
1-4-82	PSC REVISED EQUIPMENT LIST	JW
12-18-81	ADDED TAG NO.	JW
12-10-81	CHANGE FROM Δ TO T	JW

REV.	DATE	DESCRIPTION	BY	CKD.	APP'D	CLIENT

DESIGN BY		THIS DRAWING IS A PART OF P.O./S.C.
DRAWN BY	J. PATE 8-14-81	
CHECKED BY		
APPROVED		
APPROVED-2		

LURGI LURGI CORPORATION
WESTERN DIVISION

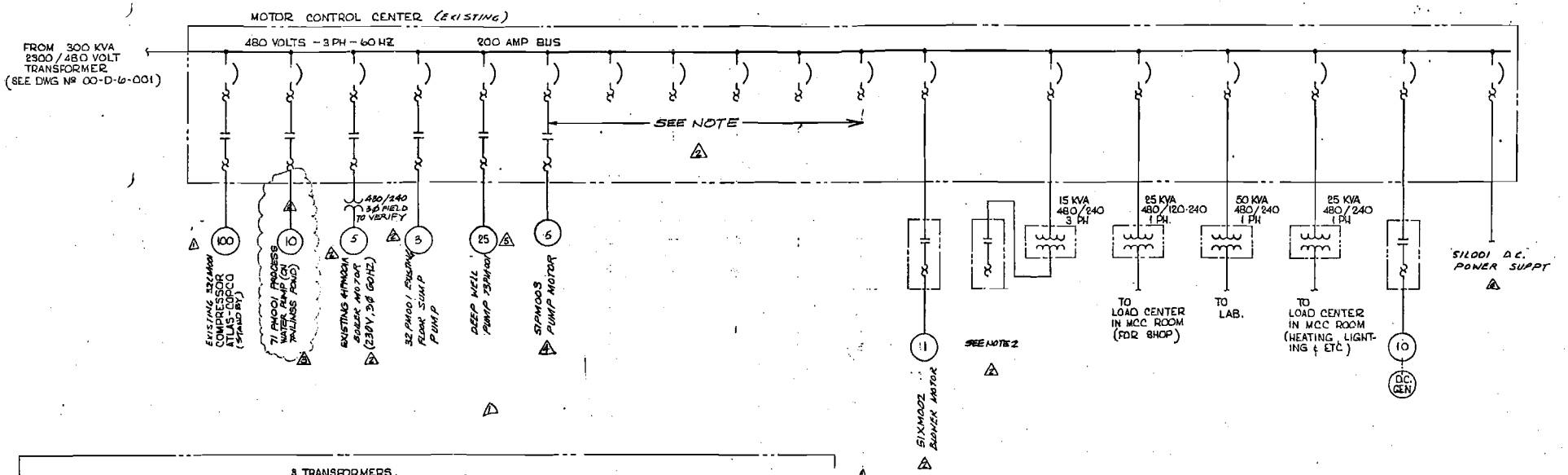
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

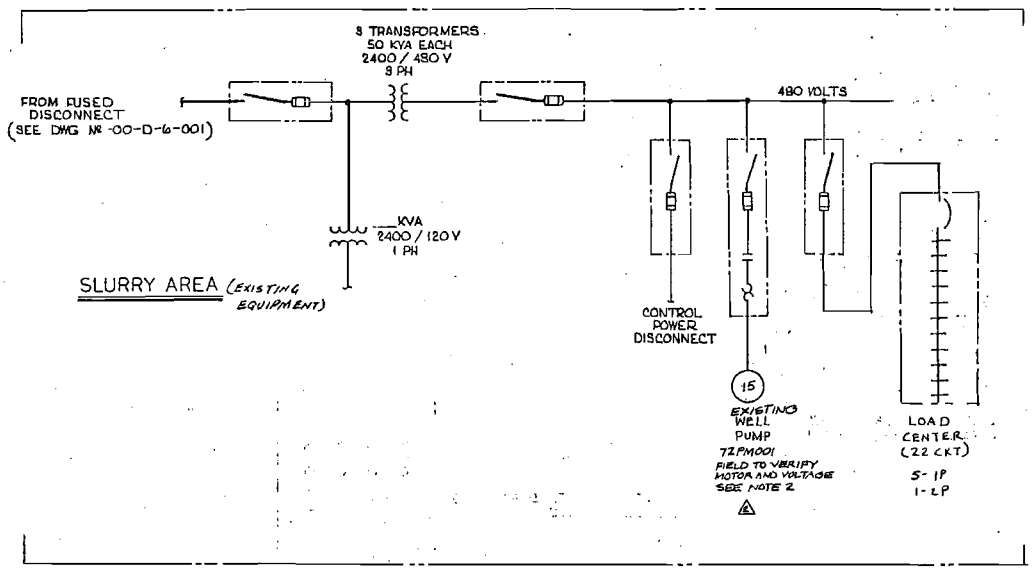
SCALE: NONE

TITLE: SINGLE-LINE DIAGRAM
MARGARET HILLS PROJECT
TONOPAH, NEVADA
1 of 4

PROJECT NO.	DRAWING NUMBER	REV.
4011	-00-D-6-001	7

00-D-6-002





NOTES:

1. UNLESS OTHERWISE INDICATED, ALL EQUIPMENT SHOWN ARE EXISTING.
2. FIELD TO VERIFY THE CONNECTION AND CORRECT THIS DRAWING FOR THE FOLLOWING EXISTING EQUIPMENT.
   - A. 41PM001, 5HP, 3Ø, 230 V
   - B. 61XM002, 1HP, 3Ø, 440 V
   - C. 72 PM001, 15 HP, 3Ø, 230 V
   - D. 73PM001, 25 HP, 3Ø, 460 V
   - E. 72PM002, 15HP 3Ø 460 V
3. HOIST MOTOR 62MM001 IS RELOCATED AND NOW FEED FROM PANEL "DP1". USE EXISTING HOIST MOTOR STARTER.
4. IN GENERAL, RE USE ALL OTHER EXISTING MOTOR STARTERS FOR MOTOR THAT ARE FEED FROM "DP1" AND "LP1".

REV.	DATE	D.T.	CLIENT	FIELD	VEND	M.F.	REMARKS

DRAWING NO.	REFERENCES

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	CLIENT
5	5-19-82	REV. PER 5/18/82 EQUIPMENT LIST	JP	JP		
4	5-14-82	REVISED	FW	FW		
3	4-13-82	REVISED AS NOTED	FSF	FW		
2	4-7-82	REVISED PER EQUIPMENT LIST DATED 3-23-82	DCO			
1	1-4-82	PER REVISED EQUIPMENT LIST 12-24-81	FW			
A	11-20-81	ISSUED FOR CONSTRUCTION	FW			

DESIGN BY	
DRAWN BY	J. PATE 8-14-81
CHECKED BY	11-20-81
APPROVED-1	11-20-81
APPROVED-2	

THIS DRAWING IS A PART OF P.O./S.C.:

LURGI LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA COPORATION
MARGARET HILLS

SCALE:

TITLE: SINGLE-LINE DIAGRAM
MARGARET HILLS PROJECT
TONOPAH, NEVADA 2 of 4

PROJECT NO	DRAWING NUMBER	REV.
4011	-00-D-6-002	5

480V-3PH-60HZ
FROM 600 V. SWITCHGEAR
(SEE DWG Nº 00-D-6-001)

MCC #1 480 V, 3ø, 3W, 60HZ CONNECTED LOAD: NEMA 12 ESTIMATED DEMAND:

2/1600/⚠ 600A BUS (TOP ENTRY - INCOMING & OUTGOING)

NOTES —
1 SPACES AND SPARES TO BE AS SHOWN ON DATA SHEETS FOR MCC'S Nº 1 & 2
⚠2. SEE NOTES ON DWG Nº 00-D-6-004

1) MM001 BELT FEEDER
MM002 BELT CONVEYOR
3) PM003 SCREW UNLOADING
2) PM004 MILL DISCHARGE PUMP
21L003A BUCK/BOOST TRANSFORMER
5) PM004 PUMP MOTOR
2) PM 002 MILL ROOM SUMP PUMP
3) AM001 AGITATOR
3) AM002 AGITATOR
3) AM003 AGITATOR
3) PM004 PACHUCA FEED PUMP
33 PM003A PUMP
33 PM003B PUMP
33 AM001 AGITATOR
33 AM002 AGITATOR
3) CM034 FAN

600A BUS

33 SM001 VIBRATING SCREEN
33 AM003 AGITATOR
33 AM004 AGITATOR
33 PM002 PUMP
3) CM033 SO_2 BLOWER
33 SM002 VIBRATING SCREEN
33 SM003 VIBRATING SCREEN
33 SM004 VIBRATING SCREEN
33 SM005 VIBRATING SCREEN
33 SM006 VIBRATING SCREEN
2) PM 001 & MILL DISCHARGE PUMP
21L003B BUCK/BOOST TRANSFORMER
5) PM001B PACHUCA FEED PUMP
33 PM004 PUMP
SCRAPE
33 PM005 WASH TANK FLUSH PUMP
35 SM006 VIBRATING SCREEN
33 SM008 VIBRATING SCREEN
63GM001 BALL MILL MOTOR
43L001 BUCK/BOOST TRANSFORMER
3) XH001A SCRUBBER FAN
3) XH001B SCRUBBER PUMP
3) CM032 ATOMIZING AIR COMPR.
SCPM002 PUMP

ISSUED FOR
2 0 NOV 1981
CONSTRUCTION

REV.	DATE	D.T.	CLIENT	FIELD	VEND	M.F.	REMARKS

DRAWING NO.	REFERENCES
⚠ 11-11-82	REVISE MOTOR & MCC DATA JP
⚠ 5-19-82	REVISED PIPE EQUIPMENT LIST SIZES JP FW
⚠ 4-7-82	REVISED MBA EQUIPMENT LIST DATED 3-22-82 DSD
⚠ 3/19/82	CM LINE DETAILS FW
⚠ 1/22/82	FOR PURCHASE FW
⚠ 1-4-82	MBA REVISED EQUIPMENT LIST 11-25-81 FW
⚠ 12-18-81	ADDED TAG NOS. FW

REV.	DATE	DESCRIPTION	BY	CK'D.	APP'V.	CLIENT

DESIGN BY	F. WONG	11-17-81
DRAWN BY	F. WONG	11-19-81
CHECKED BY	[illegible]	11-20-81
APPROVED-1	[illegible]	11-20-81
APPROVED-2		

THIS DRAWING IS A PART OF P.O./S.C.:

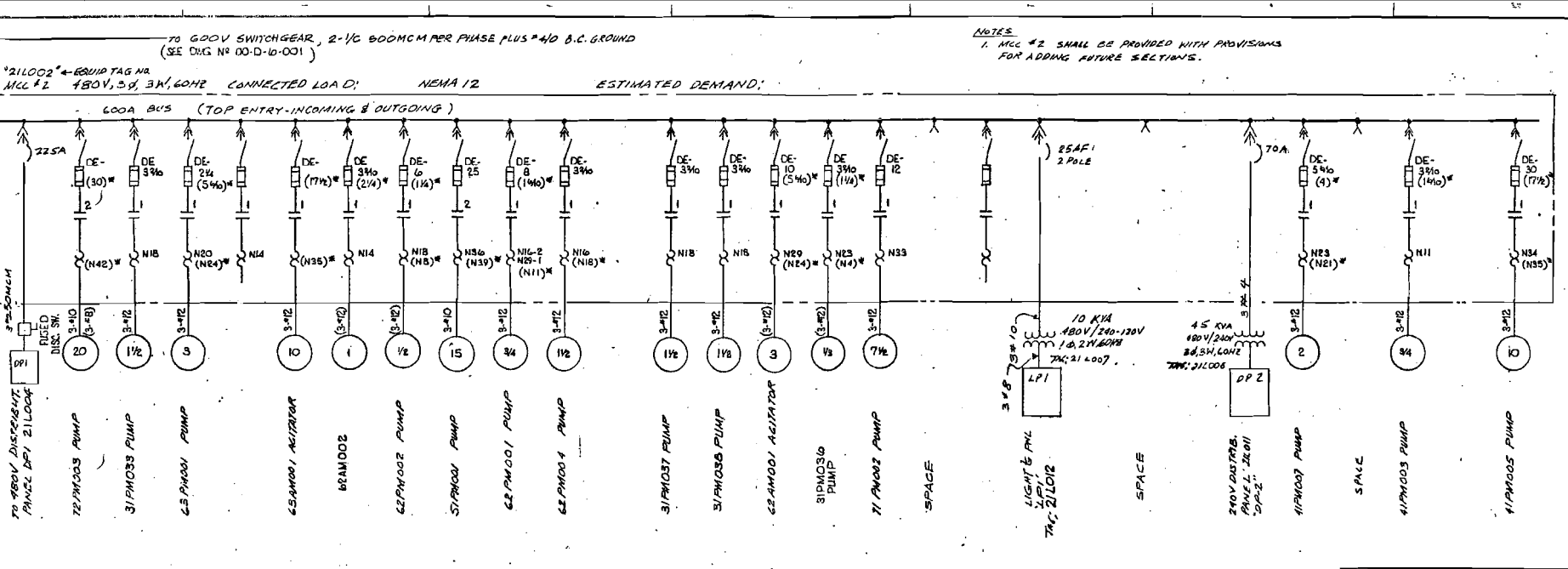
LURGI LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

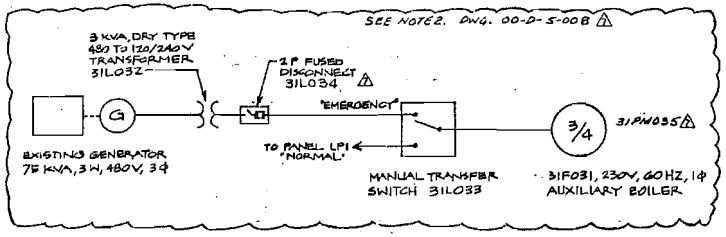
SCALE: NONE

TITLE: SINGLE LINE DIAGRAM
MARGARET HILLS PROJECT
TONOPAH, NEVADA 3 of 4

PROJECT NO.	DRAWING NUMBER	REV.
4011	00-D-6-003	7



NOTES
1. MCC #2 SHALL BE PROVIDED WITH PROVISIONS FOR ADDING FUTURE SECTIONS.



NOTES —

( )* — INDICATES RECOMMENDED FUSE SIZE OR STARTER HEATER SIZE TO BE USED. HEATER SIZE IS BASED ON MOTOR FULL LOAD AMPS FROM N.E.C.

HEATER CAT. NO'S ARE TAKEN FROM TABLE 16 OF THE ALLEN BRADLEY CATALOG. BEFORE INSTALLING HEATER COILS THE FIELD SHOULD CHECK MOTOR NAMEPLATE FOR THE FULL LOAD AMPS IN CASE IT DIFFERS FROM N.E.C.

ISSUED FOR
8 NOV 1981
CONSTRUCTION

REV 4 — REVISE MOTOR DATA & MCC PER FIELD INFO/JP/NOV-11-82

REV.	DATE	BY	CLIENT	FIELD	VEND		ILF	REMARKS

DRAWING NO		REFERENCES				
4	5-27-82	ADDED TAG NOS.		FM	FW	
3	5-14-82	AS DIRECTED BY FIELD		FM	FW	
2	4-13-82	REVISED AS NOTED		RSA	JJL	
1	4-7-82	REVISED PER REQUIREMENT MET NOTED 3-25-82		DCD		
0	1-12-82	FOR PURCHASE		JLJ		
5	12-5-81	REVISION		FW		
4	12-1-81	ADDED TAG #		FW		
REV.	DATE	DESCRIPTION	BY	CKD	APPV.	CLIENT

DESIGN BY	F. WONG 8-14-81	THIS DRAWING IS A PART OF P.O./S.C.:
DRAWN BY	F. WONG 11-16-81	
CHECKED BY	T. LEE 11-20-81	
APPROVED-1	[signature] 11-24	
APPROVED-2		

LURGI LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NONE

TITLE: SINGLE-LINE DIAGRAM
MARGARET HILLS PROJECT
TONOPAH, NEVADA 4 of 4

PROJECT NO	DRAWING NUMBER	REV
4011	00-D-6-004	8

LM-IRE 9-80

SPACE	31PM001A PACHUCA FEED PUMP SZ-2 ② 25 HP	33AM001 AGITATOR SZ-2 25 HP	33AM003 AGITATOR SZ-2 25 HP	33PM004 PUMP SZ-1 7½HP	31PM031 SULPHER UNLOADING SZ-2 15HP	33SM008 VIBRATING SCREEN SZ-1 1 HP	31XM001B SCRUBBER FAN SZ-1 1½HP	21L001 LIG COMPT. INCOMING POWER
31PM034 (REMOVED)	21PM001B MILL DISCH. PUMP SZ-2 ① 25 HP	33AM002 AGITATOR SZ-2 25HP	33AM004 AGITATOR SZ-2 25 HP	31PM001B PACHUCA FEED PUMP SZ-2 ② 25 HP	31CM032 COMPRESSOR SZ-1 10HP	SPACE SZ 3 △1	33 PM003 B PUMP SZ-3 ③ 40HP △1	33PM003A PUMP SZ-3 ③ 40HP △1
31CM033 SO_2 BLOWER SZ 4 100HP	51PM002 PUMP SZ-1 3HP	63GM001 BALL MILL SZ-1 10 HP	31AM001 AGITATOR SZ-1 7½HP	33PM002 PUMP SZ-1 10HP	33SM007B VIBRATING SCREEN SZ1 △1 1½ HP	33SM003 VIBRATING SCREEN SZ-1 1½ HP	SPACE	33PM005 WASH TANK FLUSH PUMP SZ-1 5 HP
	21PM001A MILL DISCH. PUMP SZ-2 ① 25 HP	11MM001 BELT FDR SZ-1 10HP	31AM002 AGITATOR SZ-1 7½HP	33SM001 VIBRATING SCREEN SZ-1 1½HP	SPARE △1	33SM004 VIBRATING SCREEN SZ-1 1½ HP	31CM034 FAN SZ-1 5HP	SPARE
SPACE	51PM004 PUMP SZ-1 1HP	11MM002 BELT FDR SZ-2 15HP	31AM003 AGITATOR SZ-2 15HP	21PM002 MILL FLOOR SUMP PUMP SZ-1 5HP	33SM002 VIBRATING SCREEN SZ-1 1½HP	33SM007A VIBRATING SCREEN SZ-1 1½HP	33SM006 VIBRATING SCREEN SZ-1 1HP	31XM001A SCRUBBER FAN SZ-1 5HP

1. THE ABOVE ARRANGEMENT IS PER INFORMATION RECEIVED FROM THE FIELD ON 11-16-82
2. SEE MOTOR LISTS, SHEETS 1 & 2 FOR SIZE OF FUSES, HTR COILS & REMARKS
3. ③ — INDICATES STARTER THAT IS ELECTRICALLY INTERLOCKED WITH ANOTHER STARTER THAT HAS THE SAME SYMBOL.

GENERAL ARRANGEMENT FOR MCC Nº 1 (21L001)

9/24/83 TAILINGS PUMP MOTORS CHANGED FROM 30 TO 40 HP △1

MARGARET HILLS – TONOPAH NEVADA ——— JOB Nº 4011

SKETCH Nº MCC-1-111682 △1

21L004	21-L006 / 21-L005	72PM003 PUMP	21L002 LUG COMPT. INCOMING POWER
	63AM001 AGITATOR SZ-1 10HP	SZ-2 20HP	41PM007 PUMP SZ-1 2HP
62AM001 AGITATOR SZ-1 3 HP	SPARE	62AM002 AGITATOR SZ-1 1 HP	41PM003 PUMP SZ-1 3/4 HP
31PM036 DIESEL OIL PUMP SZ-1 1/3 HP	51PM001 PUMP SZ-2 15HP	62PM004 PUMP SZ-1 1½HP	41PM005 PUMP SZ-1 10HP
SPARE SZ-1 (2)	63PM001 PUMP SZ-1 3HP	31PM033 PUMP SZ-1 1½HP	62PM001 PUMP SZ-1 3/4 HP
SPARE SZ-1 (2)	31SM040 SO_2 TANK VIB. SCREEN SZ-1 (1) 1½HP	71PM002 PUMP SZ-1 7½HP	62PM002 PUMP SZ-1 ½ HP

1. THE ABOVE ARRANGEMENT IS PER INFORMATION RECEIVED FROM THE FIELD ON 11-16-82.
2. SEE MOTOR LISTS, SHEETS 3 & 4 FOR SIZE OF FUSES, HTR COILS & REMARKS (1)
3. 63PM002 STARTER REMOVED FROM MCC-2 & TO BE MTD LOCALLY. POWER TO BE FROM 21L004 (2)

GENERAL ARRANGEMENT FOR MCC Nº 2 (21L002)

1/14/83 ADDED 31SM040 VIB. SCREEN MOTOR (1)
3/24/83 REMOVED 31PM037 & 038 (LIME SCRUBBER P.) (2)

MARGARET HILLS — TONOPAH, NEVADA ——— JOB Nº 4011

SKETCH Nº MCC-2-111782

BECHTEL CORPORATION

MTO BY J. PATE DATE 12-1-82
CHK BY G WONG DATE 12-1-82

MOTOR LIST

LOCATION TONOPAH, NEVADA
REV 4 DATE 3-24-83
SHEET 1 OF 4

MCC Nº1 (21L001)

MOTOR Nº	SERVICE	HP	RPM	VOLT	PH	HZ	FLA	SER FAC	MFR	FUSED SW AMPS	FUSED SW TYPE	STARTER SE	STARTER HTR #	LOCATED ON DWG Nº.	FDR SZ	REMARKS
														00-D-6-003		
11MM001	BELT FEEDER	10		460	3	60	13.1	1.0	RELIANCE	15	DE	1	N34		3-#12	(1)(3)
11MM002	BELT FEEDER	15		460	3	60	19	1.15	BALDOR	20	DE	2	N38		3-#8	(1)(3)
21PM001A	MILL DISCH. PUMP	25		460	3	60	30.5	1.15	U.S. EL.	35	DE	2	N43		(3-#8)	(1)(3)
21PM001B	MILL DISCH PUMP	25		460	3	60	32.7	1.15	TOSHIBA	40	DE	2	N43		(3-#8)	(1)(3)
21PM002	MILL FLR SUMP PP.	5		460	3	60	6.9	1.0	RELIANCE	8	DE	1	N28		3-#12	(1)(3)
31AM001	AGITATOR	7½		460	3	60	10.5	1.15	RELIANCE	12	DE	1	N33		3-#12	(1)(3)
31AM002	AGITATOR	7½		460	3	60	10.5	1.15	RELIANCE	12	DE	1	N33		3-#12	(1)(3)
31AM003	AGITATOR	15		460	3	60	22.02	1.0	SIEM. A.	25	DE	2	N39		3-#12 (3-#10)	(1)(3)
31CM032	COMPRESSOR	10		460	3	60	13.7	1.15	WEST.	15	DE	1	N34	(3)	3-#12	(1)(3)
31CM033	SO_2 BLOWER	100		460	3	60	112	1.0	WEST.	125	DE	4	N77		3-#2/0	(1)(3)
31CM034	FAN	5		460	3	60	6.6	1.15	BALDOR	8	DE	1	N27	(3)	(3-#12)	(1)(3)
31PM001A	PACHUCA FD. PUMP	25		460	3	60	30.8	1.15	U.S. EL.	35	DE	2	N43		(3-#8)	(1)(3)
31PM001B	PACHUCA FD. PUMP	25		460	3	60	32.7	1.15	TOSHIBA	40	DE	2	N43		3-#10 (3-#8)	(1)(3)
31PM031	SULPHER UNLOADING	15		460	3	60	18	1.0	GEN. EL.	20	DE	2	N37		3-#8	(1)(3)
31XM001A	SCRUBBER FAN	5		460	3	60	6.64	1.0	ECONMITE	8	DE	1	N27	(3)	3-#12	(1)(3)
31XM001B	SCRUBBER FAN	1½		460	3	60	2.3	1.15	BALDOR	2 8/10	DE	1	N16		3-#12	(1)(3)
33AM001	AGITATOR	25		460	3	60	39	1.15	BALDOR	45	DE	2	N44		3-#8	(1)(3)
33AM002	AGITATOR	25		460	3	60	39	1.15	BALDOR	45	DE	2	N44		3-#8	(1)(3)
33AM003	AGITATOR	25		460	3	60	39	1.15	BALDOR	45	DE	2	N44		3-#8	(1)(3)
33AM004	AGITATOR	25		460	3	60	36	1.15	TOSHIBA	45	DE	2	N44		3-#8	(1)(3)
33PM002	PUMP	10		460	3	60	13.8	1.0	U.S. EL.	15	DE	1	N35		(3-#12)	(1)(3) TEMP. MOTOR 15 HP (4)
33PM003A	PUMP	40		460	3	60	49.0	1.15	TOSHIBA	60	DE	3	N46	(4)	3-#6	(1)(3)
33PM003B	PUMP	40		460	3	60	49.0	1.15	TOSHIBA	60	DE	3	N46	(4)	3-#6	(1)(3)

LUIGI CORPORATION

DWG NO. _____ REV. _____

REV. _____

MTO BY d. PATE DATE 12-1-82

CHK BY G. WONG DATE 12-1-82

MOTOR LIST

PROJECT _____

LOCATION TONOPAH, NEVADA

REV. 3 DATE 2-8-83

SHEET 2 OF 4

MCC Nº 1 (21L001)

MOTOR Nº	SERVICE	HP	RPM	VOLT	PH	HZ	FLA	SER FAC	MFR		FUSED SW AMPS	FUSED SW TYPE	STARTER SZ	STARTER HTR#	LOCATED ON DWG NO.	FDR SZ	REMARKS
● 33PM004	PUMP	7½		460	3	60	11				12	DE	1	N 33	00-D-6-003	3-#2 (3-#12)	①⑤ STARTER IN FIELD △4
33PM005	WASH TK FLUSH PP.	5		460	3	60	6.5	1.15	TOSHIBA		8	DE	1	N 28		3-#12	①③
● 33SM001	VIBRATING SCREEN	1½		460	3	60	1.4*				1 6/10	DE	1	N 17	△3	3-#12	①③
● 33SM002	VIBRATING SCREEN	1½		460	3	60	1.4*				1 6/10	DE	1	N 17	△3	3-#12	①③
● 33SM003	VIBRATING SCREEN	1½		460	3	60	1.4*				1 6/10	DE	1	N 17	△3	3-#12	①③
● 33SM004	VIBRATING SCREEN	1½		460	3	60	1.4*				1 6/10	DE	1	N 17	△3	3-#12	①③
● 33SM006	VIBRATING SCREEN	1		460	3	60	1.6	1.0	BALDOR		2	DE	1	N 13		3-#12	①③
● 33SM007A	VIBRATING SCREEN	1½		460	3	60	1.4*				1 6/10	DE	1	N 11		3-#12	①③
● 33SM008	VIBRATING SCREEN	1		460	3	60	1.8	1.0	DOERR.		2	DE	1	N 14		3-#12	①③
33SM007B	VIBRATING SCREEN	1½		460	3	60	1.4*				1 6/10	DE	1	N 11		3-#12	△4
● 51PM002	PUMP	3		460	3	60	4.4	1.0	U.S. EL.		5	DE	1	N 23		3-#12	①③
51PM004	PUMP	1		460	3	60	1.6	1.0	RELIANCE		2	DE	1	N 13		3-#12	①③
● 63GM001	BALL MILL	10		460	3	60	14.1	1.15	GEN. EL.		17½	DE	1	N35		3-#12	①③

*- 1.4 RUNNING CURRENT
2.8 STARTING CURRENT

KIRCH CORPORATION

DWG NO. _____ REV ___

REV ___

MTO BY J. PATE DATE 12-1-82

CHK BY G. WONG DATE 12-1-82

MOTOR LIST

PROJECT MARKLEY HILLS NO. _____

LOCATION TONOPAH, NEVADA

REV 4 DATE 3-24-83

SHEET 3 OF 4

MCC #2 (21L002)

MOTOR NO.	SERVICE	HP	RPM	VOLT	PH	HZ	FLA	SER FAC	MFR		FUSED AMPS	SW TYPE	STARTER SZ	STARTER HTR #	LOCATED ON DWG NO.	FDR SZ	REMARKS
31PM033	PUMP	1½		460	3	60	2.0	1.0	RELIANCE		2¼	DE	1	N15	00-D-6-004	3-#12	①③
31PM036	DIESEL OIL PUMP	⅓		460	3	60					1¼	DE	1	N4		(3-#12)	①③
																–	4 WAS 31PM037
																–	4 WAS 31PM038
41PM003	PUMP	¾		460	3	60	1.4	1.0	CENTURY		1 6/10	DE	1	N11		3-#12	①③
41PM005	PUMP	10		460	3	60	13.3	1.15	U.S. EL.		15	DE	1	N34		3-#12	①③
41PM007	PUMP	2		460	3	60	2.8	1.0	CENTURY		3 2/10	DE	1	N18	3	3-#12	
51PM001	PUMP	15		460	3	60	20.01	1.0	U.S. EL.		25	DE	2	N38		3-#10	①③
62AM001	AGITATOR	3		460	3	60	4.5	1.0	ALLIS CH.		5	DE	1	N23		(3-#12)	①③
62AM002	AGITATOR	1		460	3	60	3.4	1.15	BALDOR		4	DE	1	N14	3	(3-#12)	①③
62PM001	PUMP	¾		460	3	60	2.4	1.0	FRANKLIN		2½	DE	1	N17		(3-#12)	①③ STARTER IN FIELD 4
62PM002	PUMP	½		460	3	60	2.0	1.0	RELIANCE		2¼	DE	1	N15		(3-#12)	①③
62PM004	PUMP	1½		460	3	60	2.3		BALDOR		2½	DE	1	N16		3-#12	①③
63AM001	AGITATOR	10		460	3	60	13.3	1.0	ALLIS CH.		15	DE	1	N34		3-#12	①③
63PM001	PUMP	3		460	3	60	4.5	1.15	TOSHIBA		5 6/10	DE	1	N23		3-#12	①③ STARTER IN FIELD 4
71PM002	PUMP	7½		460	3	60	10.2	1.0	U.S. EL.		12	DE	1	N32		3-#12	①③
72PM003	PUMP	20		460	3	60	25.3	1.0	U.S. EL.		30	DE	2	N40		3-#10 (3-#8)	①③
1 31SM040	VIBRAT. SCREEN	1½		460	3	60	2.4				3 2/10	DE	1	N18		3-#12	1

ENERGY CORPORATION

REV
MTO BY J. PATE DATE 12-1-82
CHK BY G. WONG DATE 12-1-82

LOCATION TONOPAH NEVADA
REV 4 DATE 3-24-83
SHEET 4 OF 4

MCC Nº 2 (21L002)

MOTOR Nº	SERVICE	HP	RPM	VOLT	PH	HZ	FLA	SER FAC	MFR		FUSED AMPS	SW TYPE	STARTER SZ	STARTER HTR #	LOCATED ON DWG Nº	FDR SZ	REMARKS
21L004	PNL DP1			480V	3	60										3-250MCM	
21L011	PNL DP2	45 KVA		240V		60										3-#4	
21L012	PNL LP1	10 KVA		120-240V	1	60										3-#10	
● 63PM002	PUMP	3		460	3	60	4.3	1.0	TOSHIBA		5	DE	1	N23			POWER FROM 21L004 (4)

● — INDICATES MOTORS THAT WILL BE RUNNING CONTINUOUSLY DURING PLANT OPERATION.

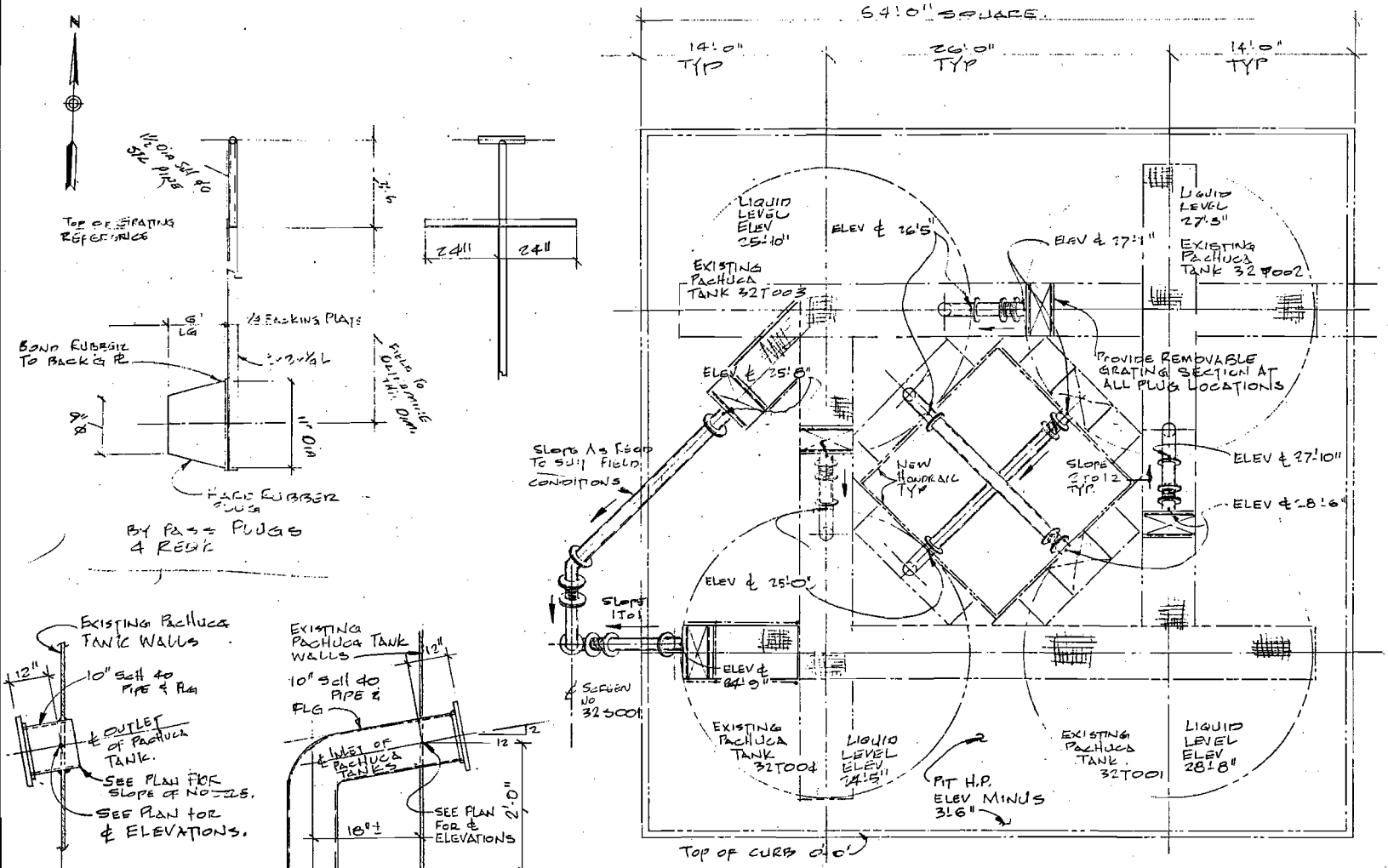
(1) — MOTOR HORSEPOWER, FUSES & HEATER COIL DATA ON THESE SHEETS ARE TAKEN FROM INFO SUPPLIED BY THE FIELD.
REVISION Nº 2 INDICATES AS BUILT STATUS.

(2) — ~~DATA WITHIN ( ) INDICATES RECOMMENDED FUSE SIZE OR STARTER HEATER SIZE TO BE USED WHEN FIELD DATA DOES NOT AGREE~~ (2)

(3) — HEATER COIL CAT. Nº'S ARE TAKEN FROM TABLE 16 OF THE ALLEN BRADLEY CATALOG. BEFORE INSTALLING HEATER COILS THE FIELD SHOULD CHECK MOTOR NAMEPLATE FOR THE FULL LOAD AMPS.

(4) —

03-D-4-001



PLAN
EXISTING PACHUCA TANKS.

SHADED AREA REPRESENTS NEW EQUIPMENT, PIPING OR GRATING OCT 30 1981

REV.	DATE	DESCRIPTION	BY	CKD.	APPV.	CLIENT

DRAWING NO. | REFERENCES

DESIGN BY EFB
DRAWN BY EFB
CHECKED BY
APPROVED-1
APPROVED-2

THIS DRAWING IS A PART OF P.O.-S.C.

LURGI LURGI CORPORATION
WESTERN DIVISION

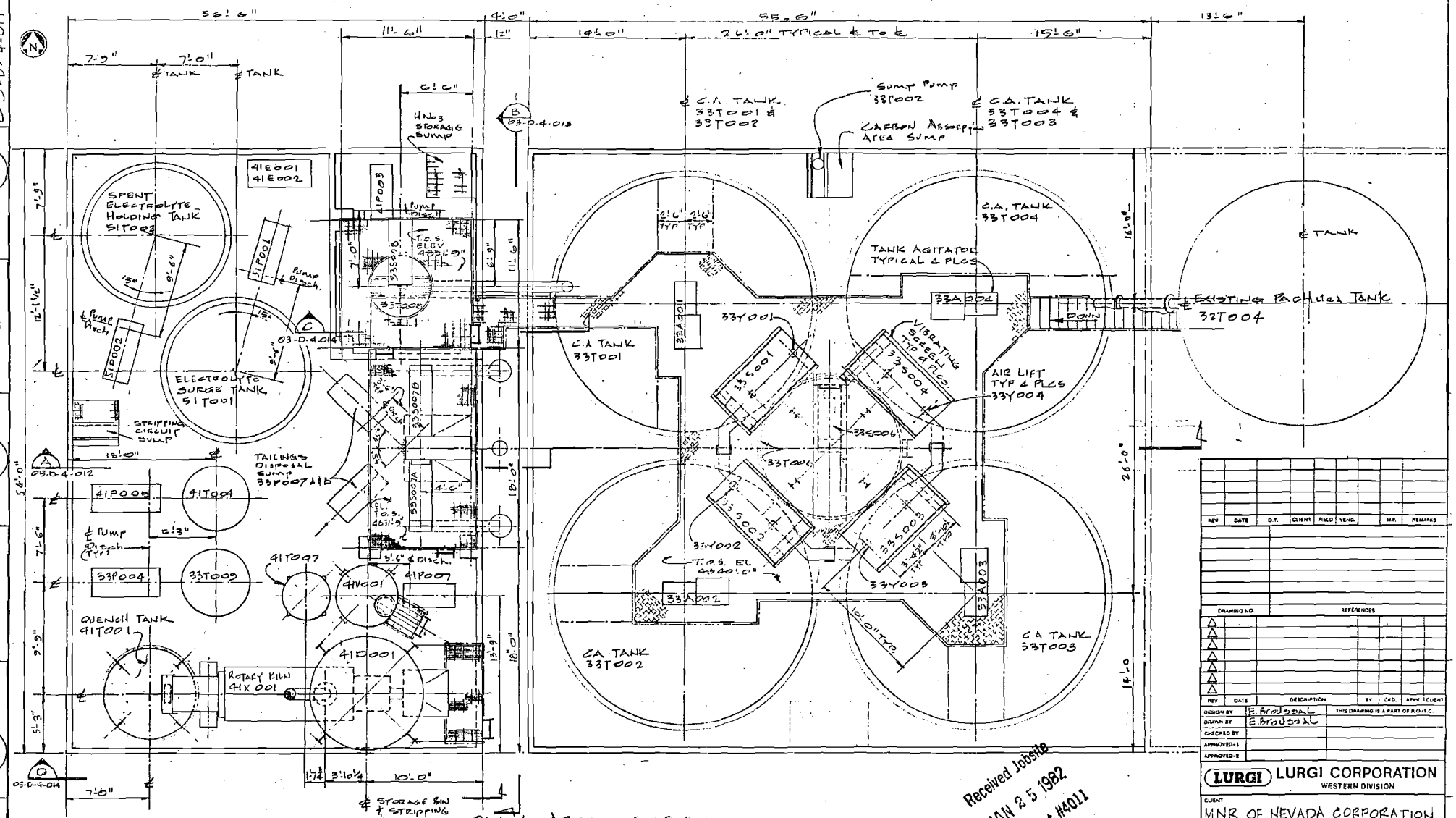
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: 1/4" = 1'-0"

TITLE: PACHUCA TANKS AREA PLAN & SECTIONS

PROJECT NO.	DRAWING NUMBER	REV.
4011	03-D-4-001	

LM-W7 5-81



PLAN ARRANGEMENT
CARBON ABSORPTION AREA
AND MISCELLANEOUS EQUIPMENT
AREA.

Received Jobsite
JAN 25 1982
Lurgi Project #4011

21 JAN 1982

REV	DATE	D.Y.	CLIENT	FIELD	VEND.	M.P.	REMARKS

DRAWING NO. | REFERENCES

REV	DATE	DESCRIPTION	BY	CKD.	APPV.	CLIENT

DESIGN BY	E. Froussal	THIS DRAWING IS A PART OF P.O./S.C.
DRAWN BY	E. Froussal	
CHECKED BY		
APPROVED-1		
APPROVED-2		

LURGI LURGI CORPORATION
WESTERN DIVISION

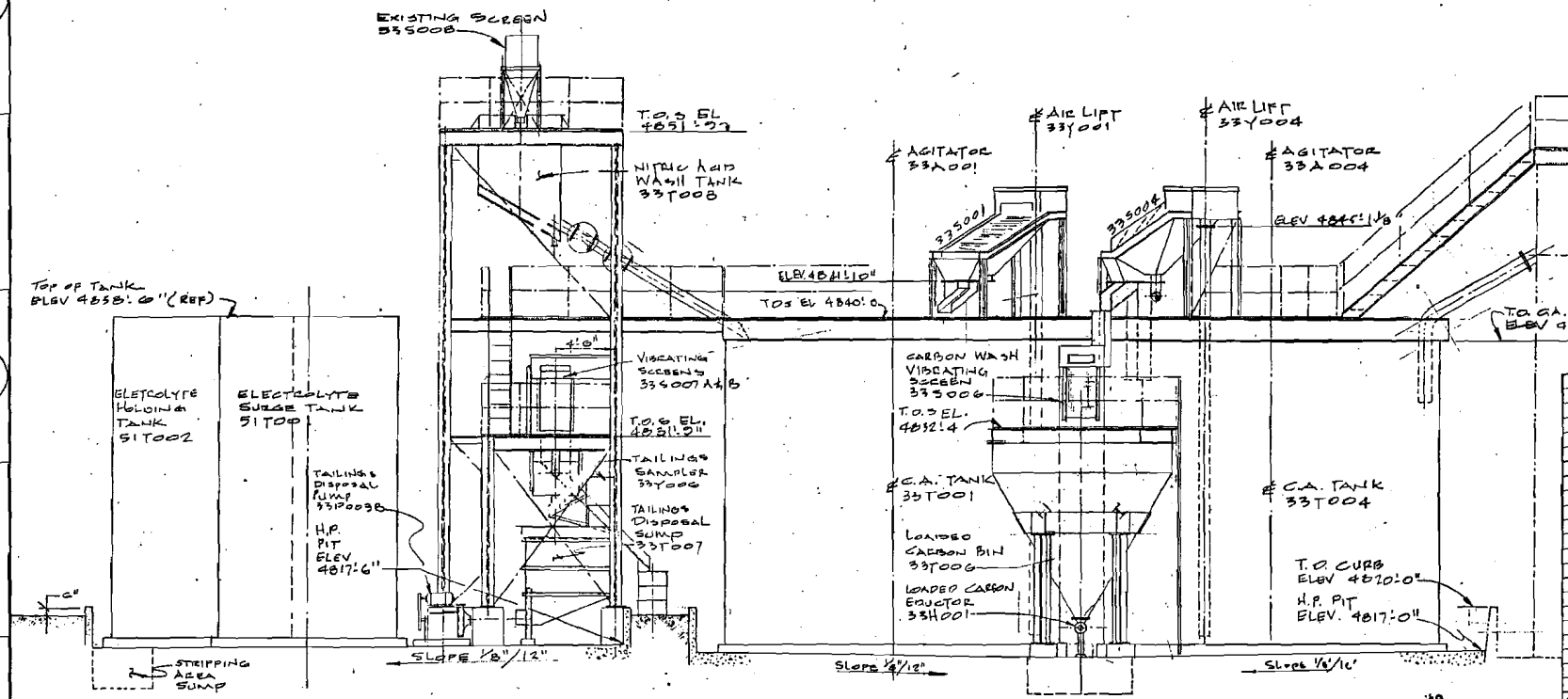
CLIENT
MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE 1/4"=1'-0"

TITLE
CARBON ADSORPTION AREA
PLAN

PROJECT NO.	DRAWING NUMBER	REV.
4011	03-D-4-011	A

03-D-4-012



SECTION A
(from DWG 03-D-4-011)
ELEVATION

3'-4"
5'-0
6'-4"
1'-6
4'-10"

12'-0
5'-
6'-0

Received Jobsite
JAN 25 1982
Lurgi Project #4011

21 JAN 1982

REV	DATE	D.T.	CLIENT	FIELD	VEND		M.F.	REMARKS

DRAWING NO. | REFERENCES

REV	DATE	DESCRIPTION	BY	CKD.	APPV.	CLIENT

DESIGN BY		THIS DRAWING IS A PART OF P.O./S.C.:
DRAWN BY	E. BROUSSARD / E. BROUSSARD	
CHECKED BY		
APPROVED-1		
APPROVED-2		

LURGI LURGI CORPORATION
WESTERN DIVISION

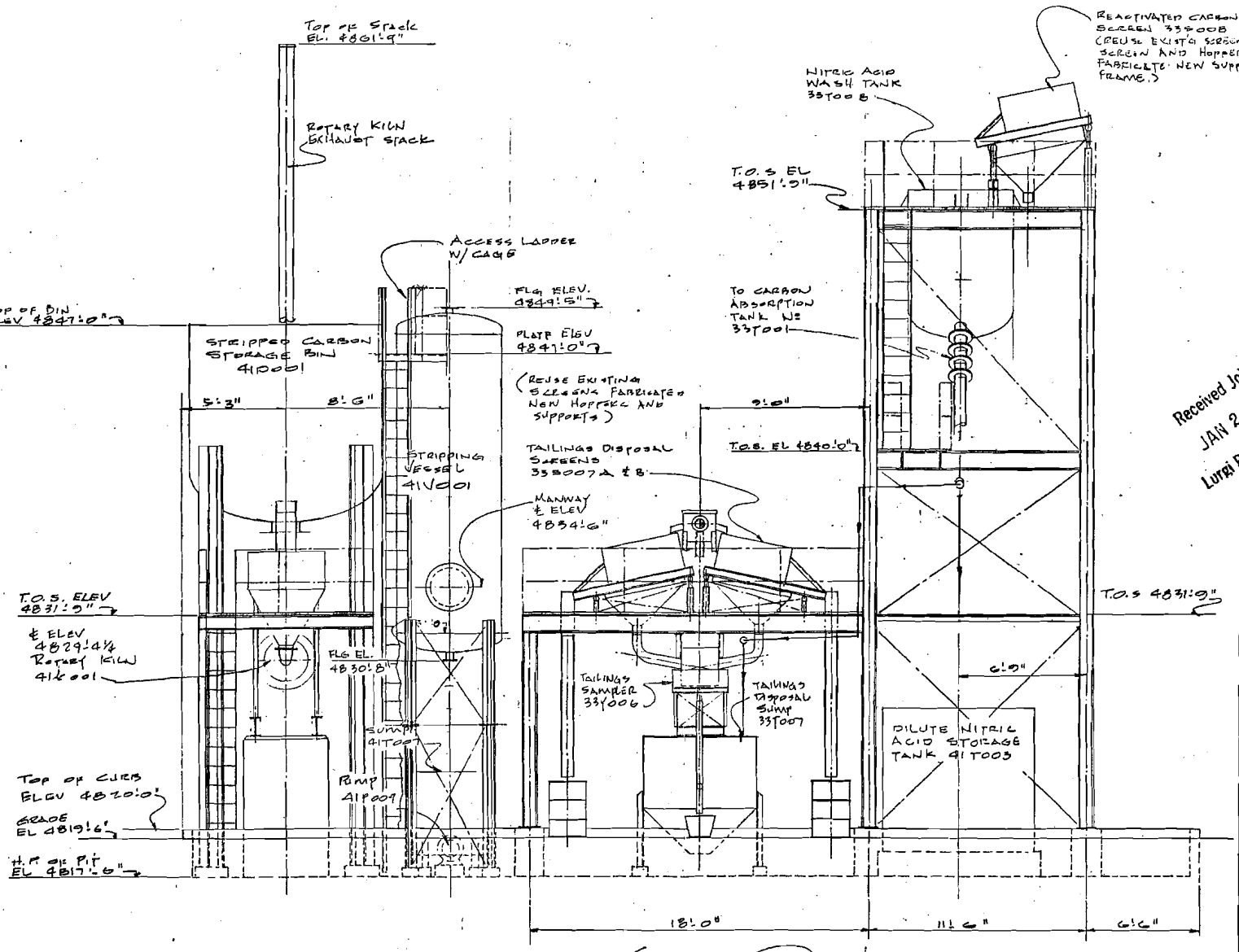
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: 1/4" = 1'-0"

TITLE: SECTION A
ADSORPTION TANK AREA

PROJECT NO	DRAWING NUMBER	REV.
4011	03-D-4-012	A

LH-REF 8"x10"



SECTION F B
03-D-4-011

21 JAN 1982

Received Jobsite
JAN 25 1982
Lurgi Project #4011

REV	DATE	D.T.	CLIENT	FIELD	VEND.	M.F.	REMARKS

DRAWING NO. | REFERENCES

REV.	DATE	DESCRIPTION	BY	CKD.	APPR.	CLIENT

DESIGN BY	E. BROUSSAL	THIS DRAWING IS A PART OF P.O./S.C.:
DRAWN BY	E. BROUSSAL	
CHECKED BY		
APPROVED-1		
APPROVED-2		

LURGI CORPORATION
WESTERN DIVISION

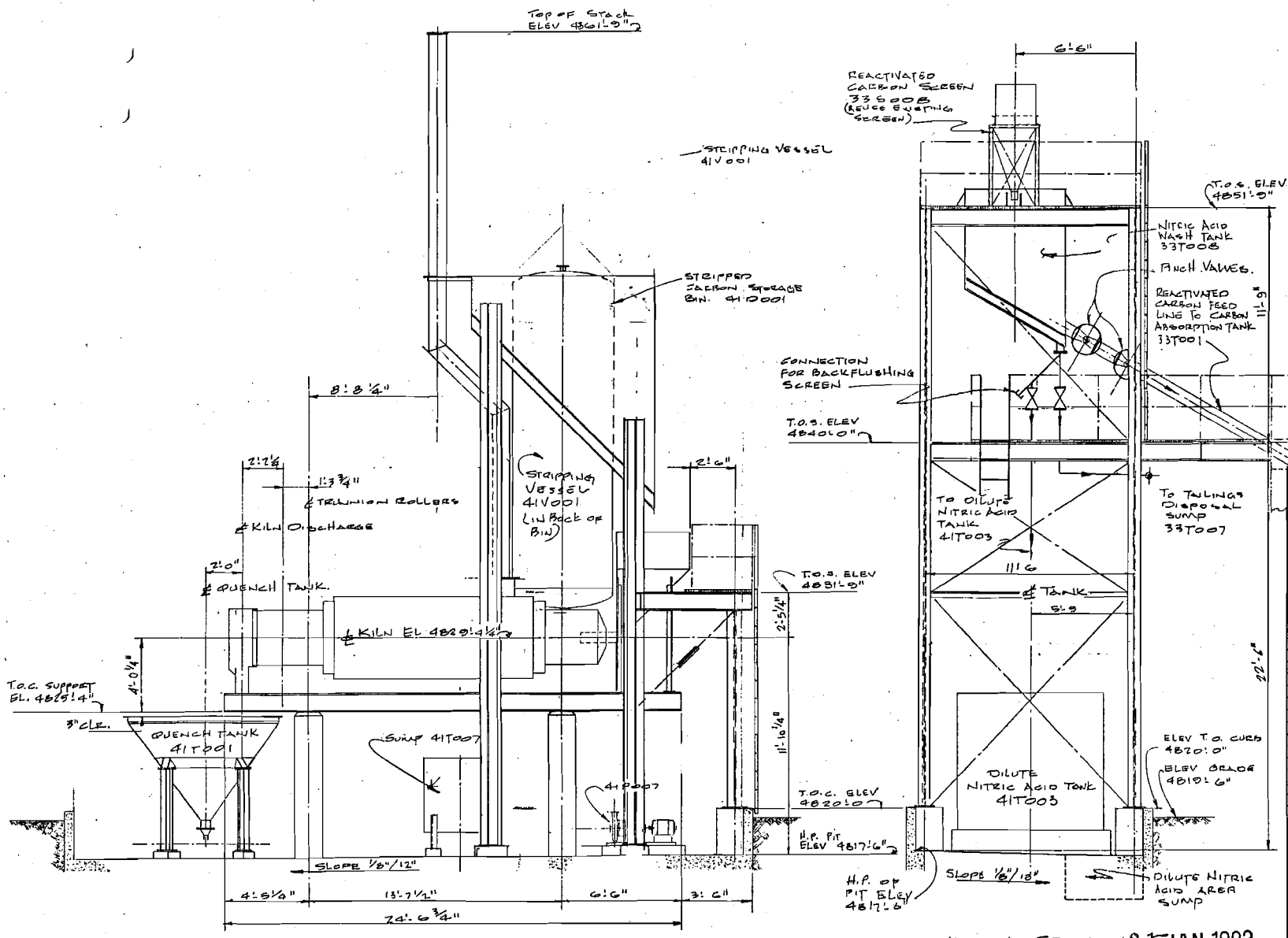
CLIENT: M.N.R. OF NEVADA CORPORATION
MARGARET HILLS

SCALE: 3/8 = 1'-0"

TITLE: ELEVATION SECTION C
STRIPPING AREA.

PROJECT NO.	DRAWING NUMBER	REV.
4011	03-D-4-013	A

UNIT WEIGHT



ELEVATION SECTION D (FROM DWG 03-D-4-011)

ELEVATION SECTION D (FROM DWG 03-D-4-011)

Received Jobsite
JAN 25 1982
Lurgi Project #4011

JAN 1982

REV.	DATE	BY	CLIENT	FIELD	VEND.	M.P.	REMARKS

DRAWING NO. | REFERENCES

REV.	DATE	DESCRIPTION	BY	CKD.	APPV.	CLIENT

DESIGN BY	E. BROUSSEAU	THIS DRAWING IS A PART OF P.O./S.C.
DRAWN BY	E BROUSSEAU	
CHECKED BY		
APPROVED-1		
APPROVED-2		

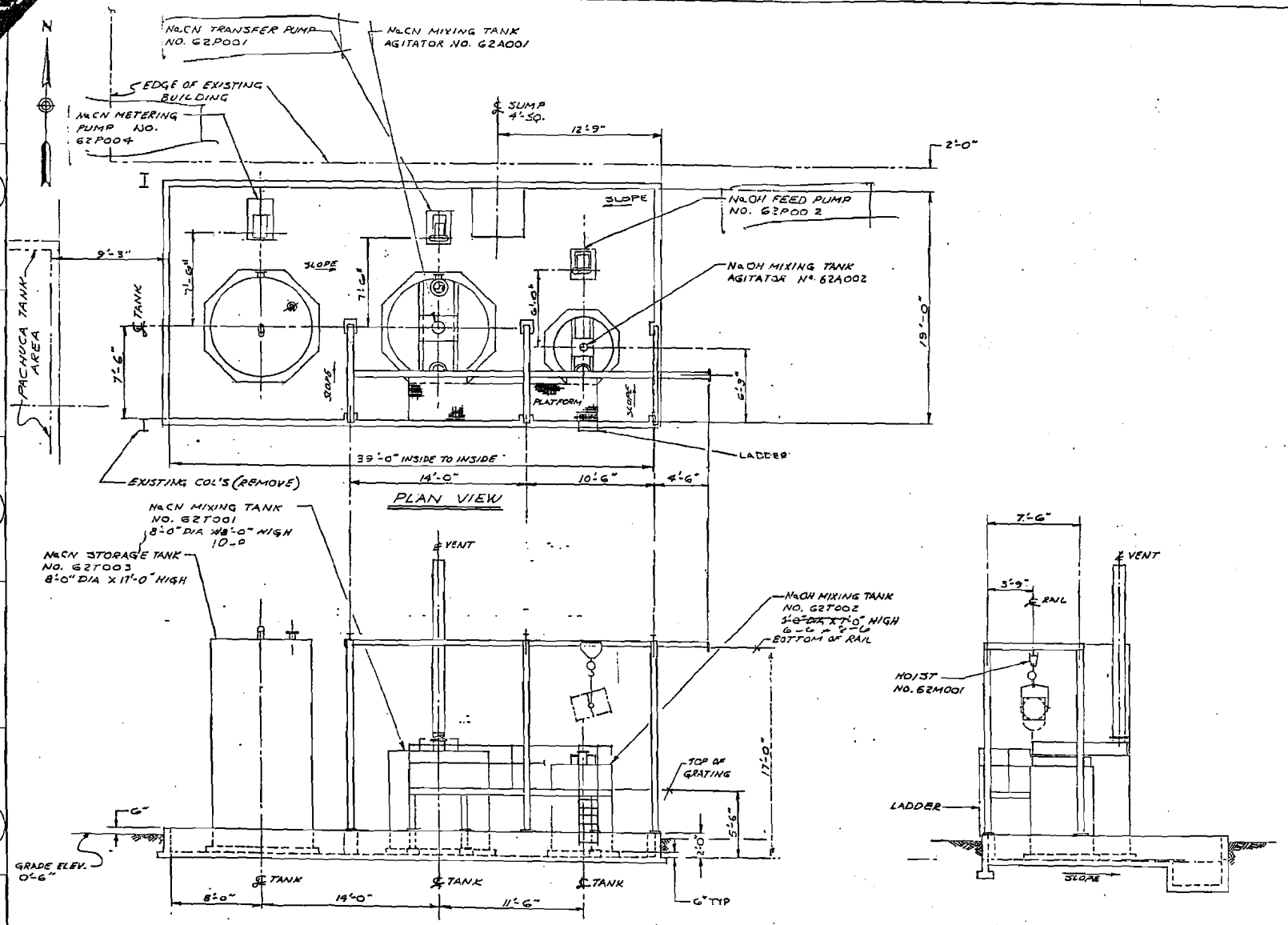
LURGI LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION MARGARET HILLS

SCALE: 3/8" = 1'-0"

TITLE: ELEVATION SECTION D ROTARY KILN

PROJECT NO.	DRAWING NUMBER	REV.
4011	03-D-4-014	A



Received Jobsite

MAR 2 3 1982

Lurgi Project #4011

MAR 15 1982

REV.	DATE	BY	CLIENT	FIELD	VENDOR	MFR	REMARKS

DRAWING NO.	REFERENCES

REV.	DATE	DESCRIPTION	BY	CHD	APPV.	CLIENT
D	7-15-82	ISSUED FOR CONST.	RLL	RLL		

DESIGN BY		THIS DRAWING IS A PART OF P.O. I.S.C.
DRAWN BY	KRSE	11-2-81
CHECKED BY	RLL	
APPROVED-1		
APPROVED-2		

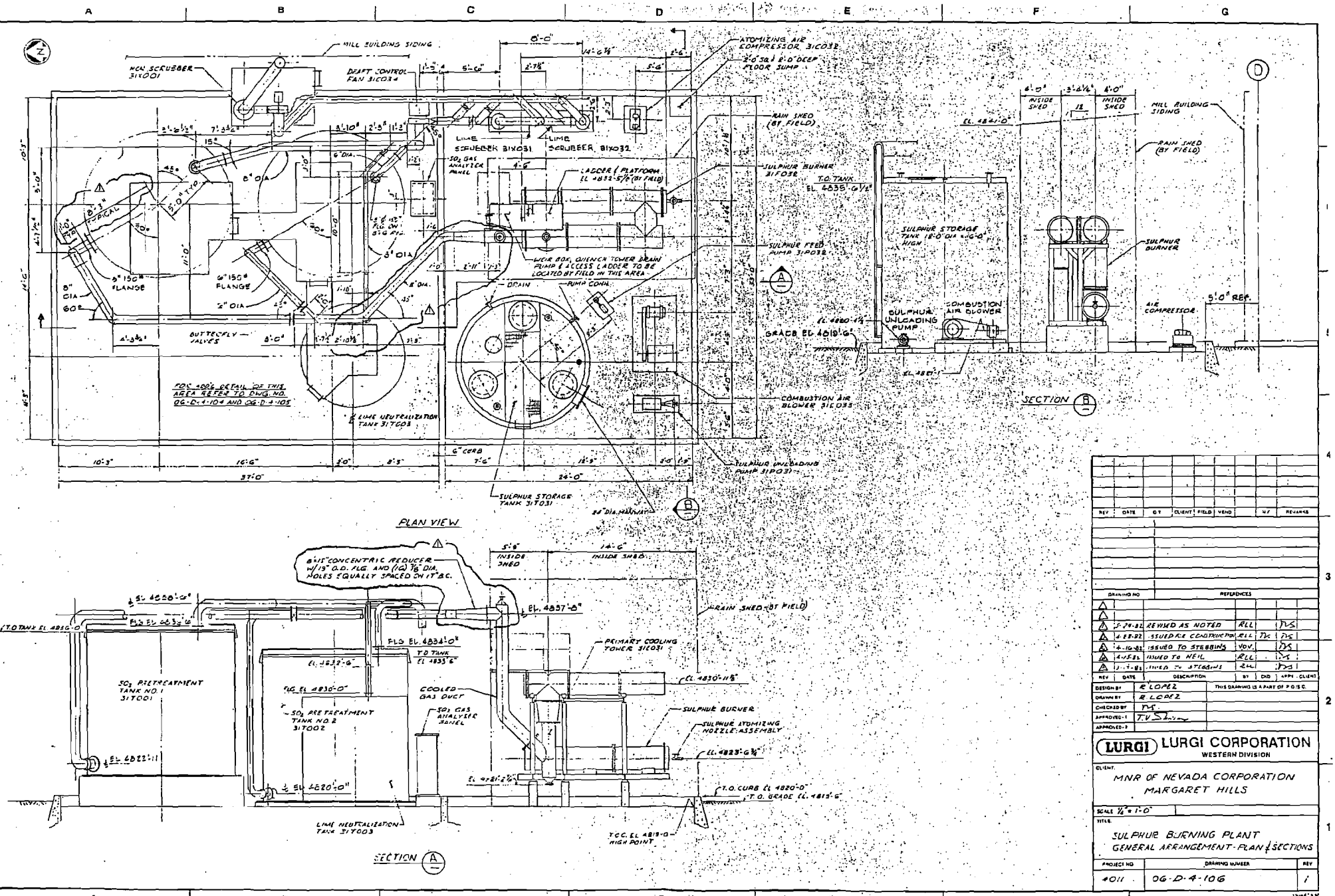
LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: 1/4"=1'-0"

TITLE: SODIUM CYANIDE & HYDROXIDE AREA - PLAN & ELEVATIONS

PROJECT NO.	DRAWING NUMBER	REV
4011	06-D-4-101	0



REV	DATE	BY	CLIENT	FIELD	VEND	MF	REMARKS

DRAWING NO	REFERENCES

REV	DATE	DESCRIPTION	BY	CKD	APPR. CLIENT
3	5-28-82	REVISED AS NOTED	RLL		MS
2	4-28-82	ISSUED FOR CONSTRUCTION	RLL	TC	MS
1	4-16-82	ISSUED TO STEBBINS	VDV		MS
	4-15-82	ISSUED TO NEIL	RLL		MS
	3-17-82	ISSUED TO STEBBINS	ZH		MS

DESIGN BY	E. LOPEZ
DRAWN BY	R. LOPEZ
CHECKED BY	MS
APPROVED-1	T.V. Shah
APPROVED-2	

THIS DRAWING IS A PART OF P.O.S.C.

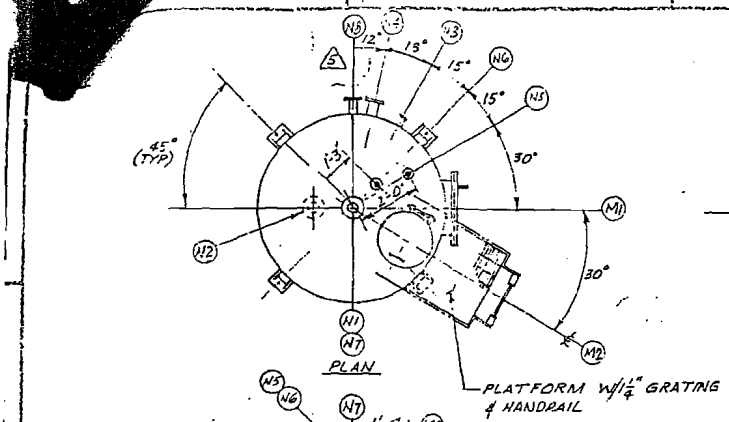
LURGI CORPORATION
WESTERN DIVISION

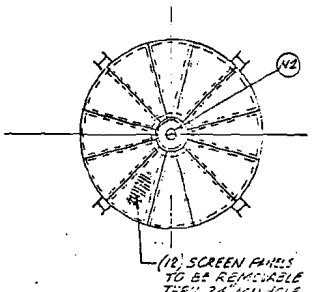
CLIENT
MNR OF NEVADA CORPORATION
MARGARET HILLS

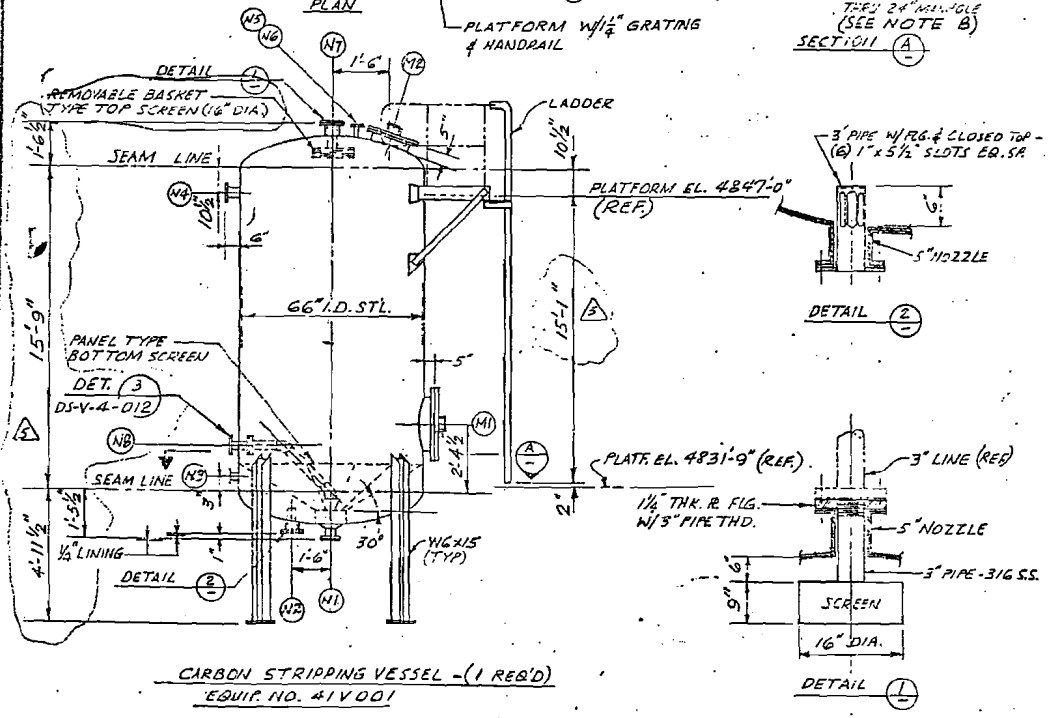
SCALE 1/8" = 1'-0"

TITLE
SULPHUR BURNING PLANT
GENERAL ARRANGEMENT - PLAN & SECTIONS

PROJECT NO	DRAWING NUMBER	REV
4011	06-D-4-106	1







CARBON STRIPPING VESSEL - (1 REQ'D)
EQUIP. NO. 41V001

NOTES:

1. DESIGN PER ASME UNFIRED PRESSURE CODE SECTION VIII, DIVISION 1. CODE STAMP REQUIRED. 1/4" MINIMUM THICKNESS.
2. LIFTING LUGS TO BE PER FABRICATOR'S DESIGN AND LURGI APPROVAL.
3. ALL WETTED SURFACES SHALL BE OF 316 STAINLESS STEEL.
4. SHIP WITH WOOD COVERS ON ALL OPEN FLANGES.
5. BOLT HOLES ON FLANGES TO STRADDLE CENTERLINE.
6. SCREEN SHALL BE AISI 316 STAINLESS STEEL PROFILE "NON-PLUGGING" WITH 0.012" TO 0.020" OPEN SPACING AS MADE BY MULTI-METAL WIRE CLOTH INC. (TAPPAN N.Y.) OR APPROVED EQUAL
7. PAINT ALL EXTERIOR STEEL WITH ONE COAT OF ENAMEL PRIMER.
8. SCREEN PANELS TO BE REINFORCED TO SUPPORT WEIGHT OF CARBON OCCUPYING ENTIRE VESSEL. DRAINED CARBON DENSITY 62.37 LBS./CU. FT.

1	OPER.	TOP	OPERATING 65 PSIG
2	TEMPERATURE °F	FEED 260°F MAX.	
3		BOTTOM	DESIGN
4	DESIGN	TOP	55°
5		FEED 300° F	WIND, P.S.F. 25 PSF
6		BOTTOM	SNOW 30 PSF
10	OPER. HYDROSTATIC HEAD		—
11	SPECIFIC GRAVITY		
12	CORR. ALL. SHELL & HDS. IN.		0
13	CORR. ALL. INTERNALS IN.		0
14	Lurgi SPECS.		PRESSURE VESSEL
15	CUST. SPECS.		
16	CONST. CODES		ASME - UBC
17	STRESS RELIEVED		
18	RAD SURVEYED		SPOT TO 65°F EFF.

REFERENCES:

TRAY DATA SHEET NO.

P & I DIAGRAM NO. 4011-00-D-5-001 THRU 7

19	SEISMIC ZONE	4
20	HEAD TYPE	ASME FLGD. & DISHED
21	PLATFORM NO. & TYPE	OSHA STD'S. - A36 STL.
22	INSULATION SERVICE	NONE
23	MATERIALS — SHELL & HEAD	316 S.S.
24	MATERIALS — INTERNAL STRUCT.	SEE NOTES
25	MATERIALS — INTERNAL BOLTING	316 S.S.
26	MATERIALS — EXTERNAL BOLTING	A 325
27	MATERIALS — EXTERNAL GASKET	TEFLON

CONNECTIONS

	NO.	SIZE	RATING	SERVICE
28	N7	3"	150 LBS.	TO PROCESS WATER TANK
29	N1	2"	150 LBS.	STRIPPED CARBON
30	N2	3"	150 LBS.	FLUSHING WATER
31	N4	3"	150 LBS.	TRANSPORT WATER & CARBON
32	N5	2"	150 LBS.	PRESSURE VALVE
33	N6	2"	150 LBS.	LEVEL CONTROL
34	N7	2"	150 LBS.	LEVEL CONTROL
35	M1	24"	65 LBS.	MANHOLE W/ HINGED COVER
36	M2	18"	65 LBS.	MANHOLE W/ HINGED COVER
37	N8	1 1/2"	150 LBS.	SLUICING WATER CONN.
38				
39				
40				
41	—	—	—	ALL FLAT FACED FLANGES
42				WITH TEFLON GASKET
43	—	—	MAT'L	FLANGES SA 181
44	—	—	MAT'L	NOZZLES 316 S.S.
45				

REV.	DATE	DESCRIPTION	DR'N / APPR.
5	2-12-82	REV'D. NOZZLE N1, ADDED N8 & PIPE, REDUCED LADDER	RLL
4	11/30/81	REV. NOTE 6 MANUFACTURER	EFb
3	11/30/81	REMOVED NEOPRENE, ADDED S.S.	RLL
2	11/16/81	WAS 14'-0", 60" DIA. & 17'-10"	RLL
1	11/2/81	WAS 2 REQ'D.	RLL
0	10/29/81	RELEASE FOR PROCUREMENT	RLL

LURGI CORPORATION
CHEMTECH DIVISION

CLIENT: MNR OF NEVADA CORP.
PROJECT: MARGARET HILLS
LOCATION: TONOPAH, NEVADA

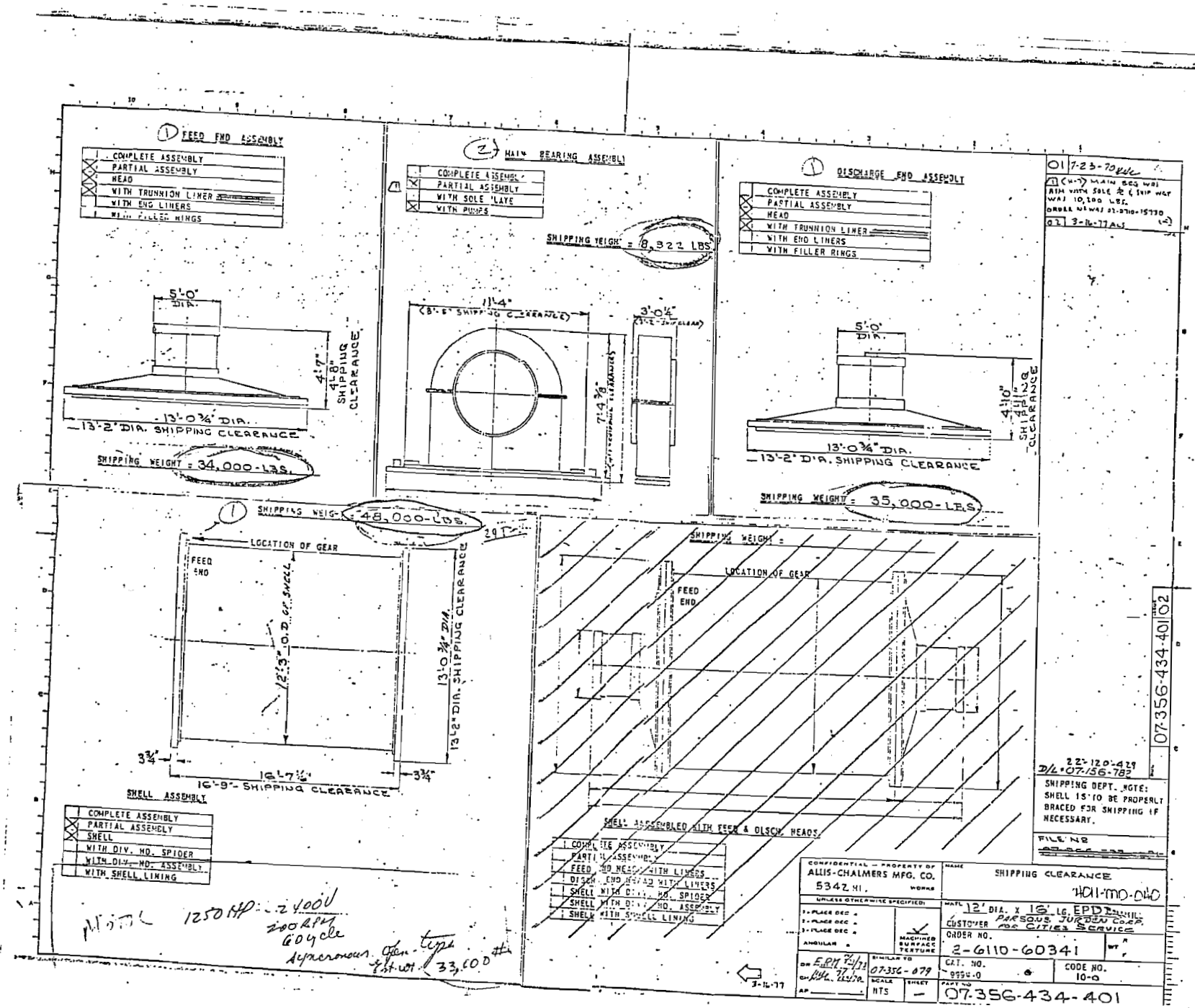
SCALE: NONE

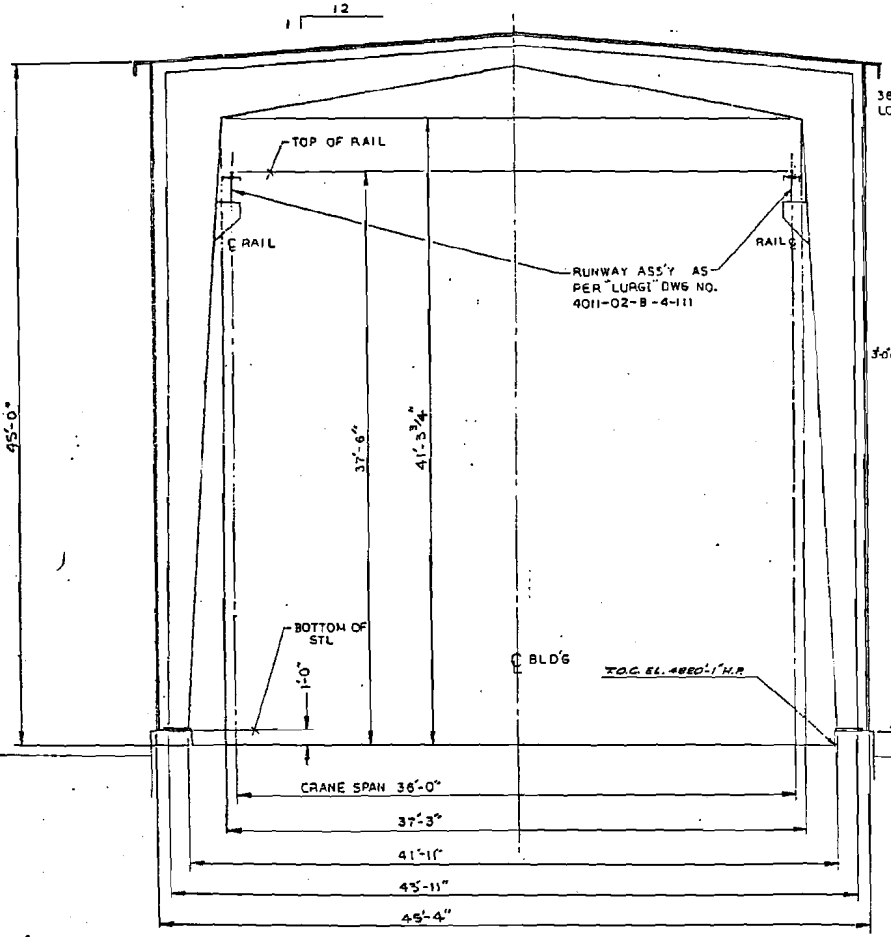
DRAWING TITLE
PRESSURE VESSEL

TAG NO. 41V001

PROJECT NO.	DRAWING NO. & SHEET	REV.
4011	DS-V-4-011	5

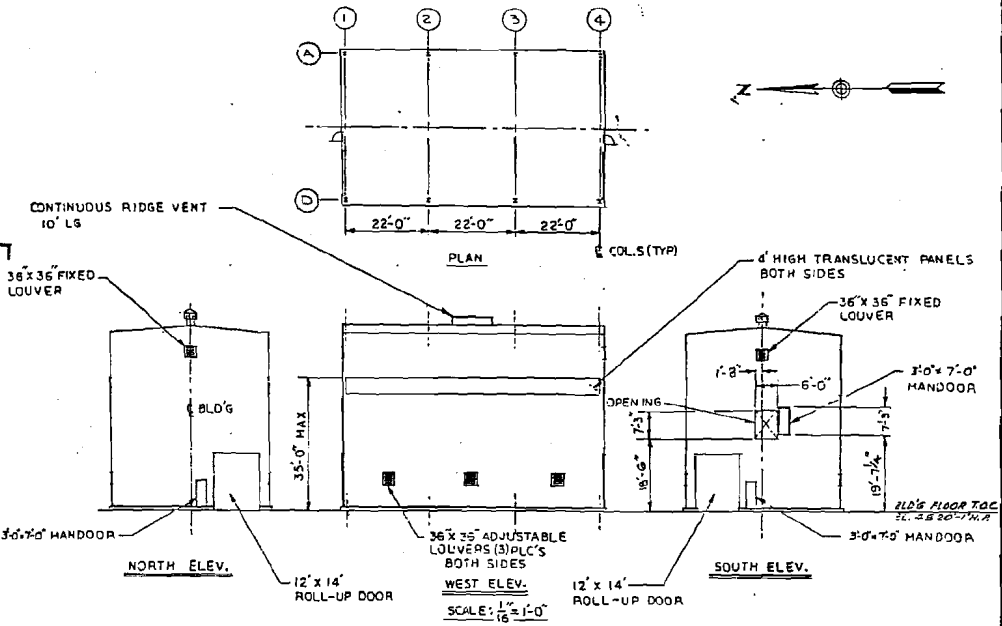
MAR 08 1982


1 FEED END ASSEMBLY
COMPLETE ASSEMBLY
PARTIAL ASSEMBLY
HEAD
WITH TRUNNION LINER
WITH END LINERS
WITH FILLER RINGS
5'-0" DIA.
4'-7"
4'-8" SHIPPING CLEARANCE
13'-0¾" DIA.
13'-2" DIA. SHIPPING CLEARANCE
SHIPPING WEIGHT = 34,000 LBS.
2 MAIN BEARING ASSEMBLY
COMPLETE ASSEMBLY
PARTIAL ASSEMBLY
WITH SOLE PLATE
WITH PUMPS
SHIPPING WEIGHT = 8,322 LBS
11'-4"
(8'-8" SHIPPING CLEARANCE)
3'-0¼"
7'-9⅜"
1 DISCHARGE END ASSEMBLY
COMPLETE ASSEMBLY
PARTIAL ASSEMBLY
HEAD
WITH TRUNNION LINER
WITH END LINERS
WITH FILLER RINGS
5'-0" DIA.
4'-10"
4'-11" SHIPPING CLEARANCE
13'-0¾" DIA.
13'-2" DIA. SHIPPING CLEARANCE
SHIPPING WEIGHT = 35,000 LBS.
1 SHIPPING WEIGHT = 48,000 LBS.
LOCATION OF GEAR
FEED END
12'-3" O.D. OF SHELL
13'-0¾" DIA.
13'-2" DIA. SHIPPING CLEARANCE
3¾"
16'-7½"
3¾"
16'-9" SHIPPING CLEARANCE
SHELL ASSEMBLY
COMPLETE ASSEMBLY
PARTIAL ASSEMBLY
SHELL
WITH DIV. NO. SPIDER
WITH DIV. NO. ASSEMBLY
WITH SHELL LINING
SHIPPING WEIGHT =
LOCATION OF GEAR
FEED END
SHELL ASSEMBLED WITH FEED & DISCH. HEADS
COMPLETE ASSEMBLY
PARTIAL ASSEMBLY
FEED END HEAD WITH LINERS
DISCH. END HEAD WITH LINERS
SHELL WITH DIV. NO. SPIDER
SHELL WITH DIV. NO. ASSEMBLY
SHELL WITH SHELL LINING
NOTE: 1250 HP 2400V 200 RPM 60 cycle Synchronous Open type 4ft.w01 33,600 #
3-14-77
01 7-23-79 KLC
(1) (W-) MAIN BEG WDI ASM WITH SOLE & E SHIP WGT WAS 10,200 LBS.
ORDER NO WAS 21-2710-15730
02 3-16-77 AM (2)
22-120-429
D/L 07-156-782
SHIPPING DEPT. NOTE: SHELL IS TO BE PROPERLY BRACED FOR SHIPPING IF NECESSARY.
FILE NO
07-356-434-401 02
CONFIDENTIAL — PROPERTY OF ALLIS-CHALMERS MFG. CO. 53424, WI. WORKS
UNLESS OTHERWISE SPECIFIED:
1-PLACE DEC ±
2-PLACE DEC ±
3-PLACE DEC ±
ANGULAR ±
MACHINED SURFACE TEXTURE
DR E.P.M. 7-1-73
CH. [illegible]
AP
SIMILAR TO 07-356-079
SCALE NTS
SHEET —
NAME SHIPPING CLEARANCE
4011-MD-040
MATL 12' DIA. X 16' LG. EPDM
CUSTOMER PARSONS JURDEN CORP. FOR CITIES SERVICE
ORDER NO. 2-6110-60341
WT N/A
CAT. NO. 9554-0
CODE NO. 10-0
PART NO 07-356-434-401



BUILDING SECTION

SCALE: 1/16" = 1'-0"



BOTTOM OF BASE PLATE EL. 4821'-1"

FINISHED GRADE EL. 4819'-0"

DESIGN LOADS

WIND LOAD = 25 PSF
SNOW LOAD = 30 PSF
SEISMIC ZONE = 4
CRANE WHEEL LOAD = 14,500 LBS

NOTE:
ALL ELEVATIONS ARE BASED ON T.O.C. OF PACHUCA TANK PIT WALL TAKEN AS ELEV. 4820'-0".

REV.	DATE	BY	DESCRIPTION	CHKD.	APPV.	CLIENT
0	10-30-81		ISSUED FOR CONST.			
1	10-15-81		DIM. UPDATE - FAB. DWGS	KRJE		
2	10-29-81		DIM. UPDATE	KRJE		
3	10-15-81		ISSUED FOR BIDS	KRJE		

DESIGN BY
DRAWN BY KRJE
CHECKED BY
APPROVED-1
APPROVED-2

THIS DRAWING IS A PART OF P.O./S.C.:

MAR 08 1982

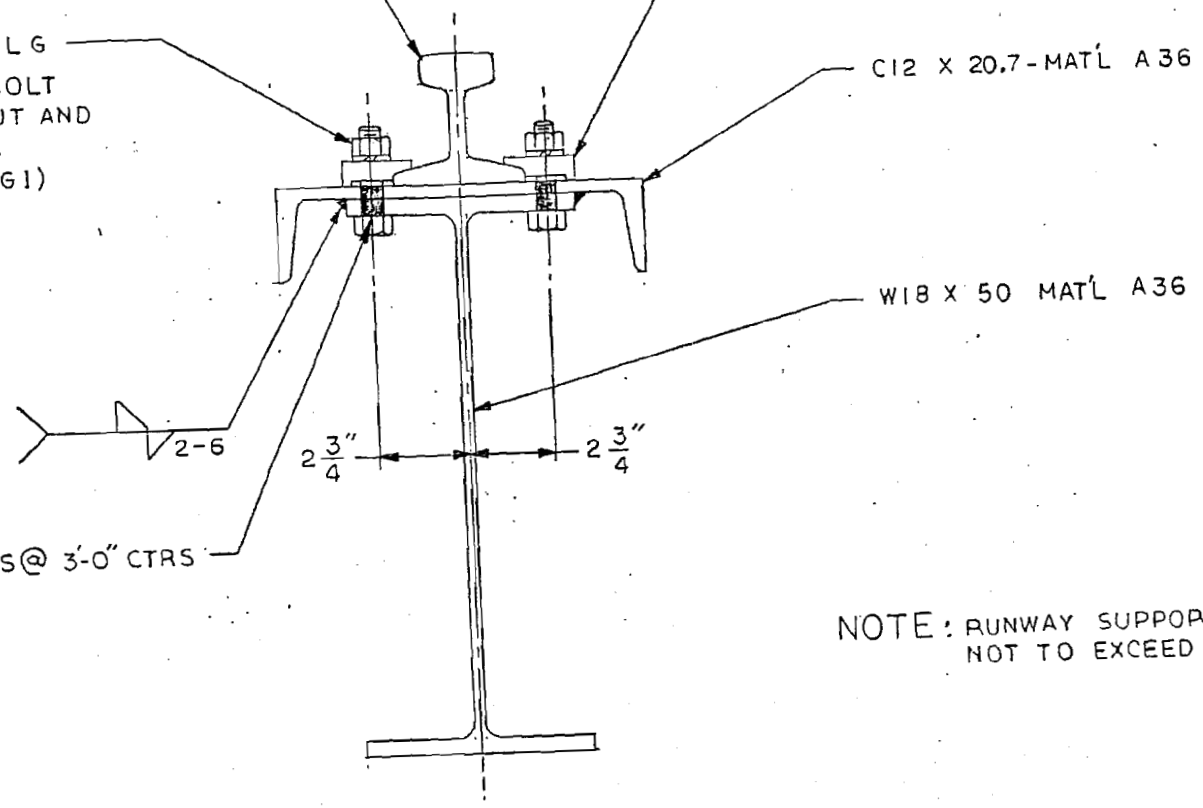
LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: NOTED

TITLE: MILL BUILDING STRUCTURE ASSEMBLY AND SECTION

PROJECT NO.	DRAWING NUMBER	REV.
4011	02-D-4-112	0



NOTE: RUNWAY SUPPORT SPACING NOT TO EXCEED 22'-0"

MAR 08 1982

REV.	DATE	DESCRIPTION	DN	CK	APPL
2	10/30/81	ISSUED FOR CONST.	RL	TT	TT
1	3-25-81	ISSUED FOR BID'S	KR	TS	TS

LURGI CORPORATION
WESTERN DIVISION

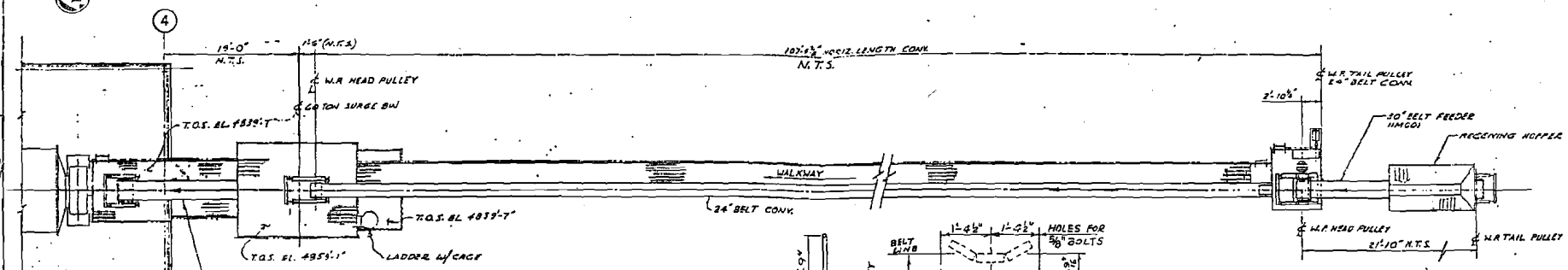
CLIENT: MNR OF NEVADA CORPORATION
PROJECT: MARGARET HILLS
LOCATION: NEVADA

SCALE: 3"=1'-0"

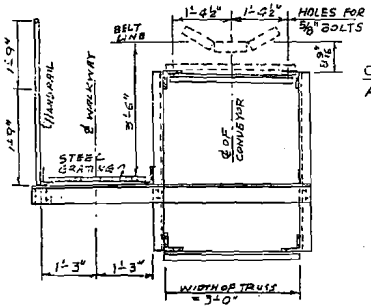
DRAWING TITLE
10 TON CRANE
RUNWAY ASSEMBLY

PROJECT NO.	DRAWING NUMBER	REV.
4011	-02-B-4-111	0

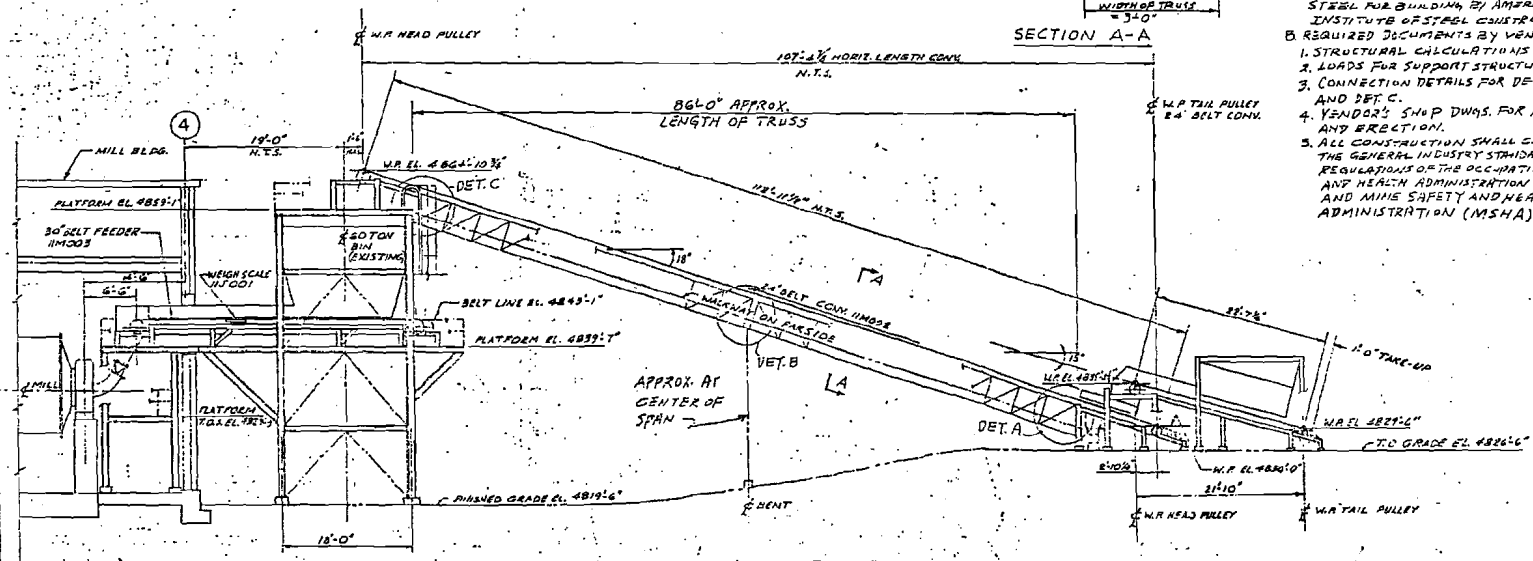
LN-CE 17 4/81



PLAN VIEW



SECTION A-A



ELEV. VIEW

CONVEYOR TRUSS

A. DESIGN CRITERIA
1. TRUSS GEOMETRY AS SHOWN
2. LOADS
MATERIAL, BELT AND IDLERS = 50 #/LIN. FT
LIVE LOAD ON WALKWAY = 100 #/LIN. FT
WIND PRESSURE = 25 #/SQ. FT
SNOW LOAD = 30 #/SQ. FT
SEISMIC ZONE = 4
3. CODE REQUIREMENTS
UNIFORM BUILDING CODE BY INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS 1979
SPECIFICATION FOR THE DESIGN, FABRICATION & ERECTION OF STRUCTURAL STEEL FOR BUILDING, BY AMERICAN INSTITUTE OF STEEL CONSTRUCTION, 1978

B. REQUIRED DOCUMENTS BY VENDOR
1. STRUCTURAL CALCULATIONS
2. LOADS FOR SUPPORT STRUCTURE DESIGN
3. CONNECTION DETAILS FOR DET. A, DET. B AND DET. C.
4. VENDOR'S SHOP DWGS. FOR FABRICATION AND ERECTION.
5. ALL CONSTRUCTION SHALL CONFORM TO THE GENERAL INDUSTRY STANDARDS, REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND MINE SAFETY AND HEALTH ADMINISTRATION (MSHA)

Fail to shut and tighting reinforced

NOTE:
ALL ELEVATIONS ARE BASED ON T.O.C. OF PACHUCA TANK PIT WALL TAKEN AS ELEV. 4820'-0"

MAR 08 1982

REV.	DATE	DESCRIPTION	BY	CHD	APPV	CLIENT APPV
DESIGN BY	R.L.	THIS DRAWING IS A PART OF P.O. #				
DRAWN BY	R.L.					
CHECKED BY						
APPROVED-1						
APPROVED-2						

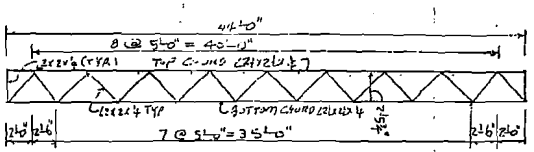
LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION MARGARET HILLS

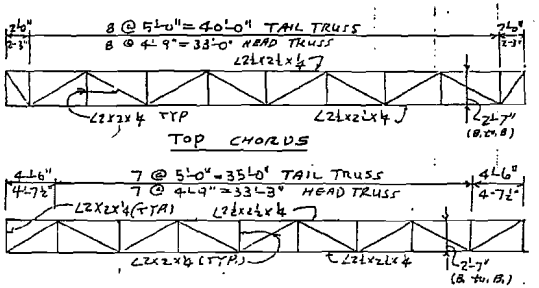
SCALE: 3/8"=1'-0"

TITLE: DESIGN CRITERIA FOR CONVEYOR TRUSS - EQ.NO. HM002

PROJECT NO.	DRAWING NUMBER
4011	01-0-2-100

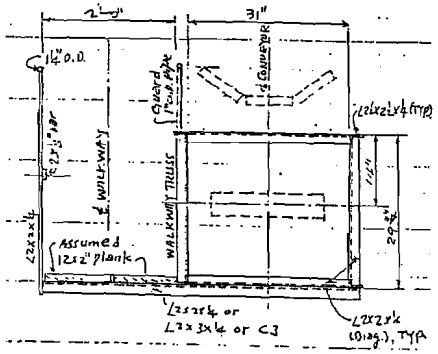


NOTE
1. ALL DIMENSIONS AND SIZES ARE ESTIMATE ONLY AS THE DRAWINGS ARE INSUFFICIENT FOR ACCURATE ASSUMPTIONS. IF EXISTING CONDITION VARIANCES, IT SHOULD BE REFERRED TO THE ENGINEER FOR RESOLUTION.

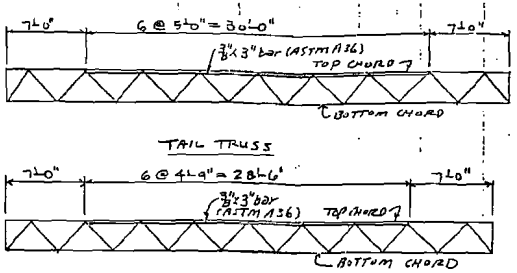


NOTE
1. The dimensions, spacing and size of bracing for top and bottom chord are arbitrary. If any deviation should be found, the Engineer should be notified for resolution.

FRAME DETAILS (EXISTING)

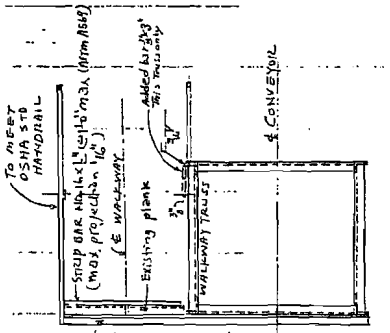


TYPICAL SECTION
(EXISTING)



NOTES:
1. For dimensions, member size and spacing not shown see SK1
2. For bracing of top and bottom chord, see SK2.
3. For TYPICAL SECTION see SK5.

ADDITIONAL BAR FOR TOP CHORD
WALKWAY TRUSS ONLY



TYPICAL SECTION
ADDITIONAL BAR

NOTE
1. The added ⅜"x3" bar shall be continuously filletwelded to existing member w/ E70XX.

MAR 08 1982

REV	DATE	BY	CLIENT / FIELD / VEND.	M.F.	REMARKS

DRAWING NO	REFERENCES

REV	DATE	DESCRIPTION	BY	CHD.	APPV.	CLIENT

DESIGN BY	THIS DRAWING IS A PART OF P.O.S.C.:
DRAWN BY	
CHECKED BY	
APPROVED-1	
APPROVED-2	

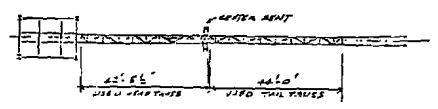
LURGI LURGI CORPORATION
WESTERN DIVISION

CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

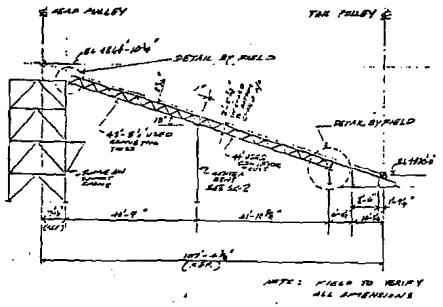
SCALE:

TITLE: MATERIAL HANDLING SYSTEM
USED CONVEYOR TRUSS
EXISTING AND ADDITIONAL BAR DETAILS

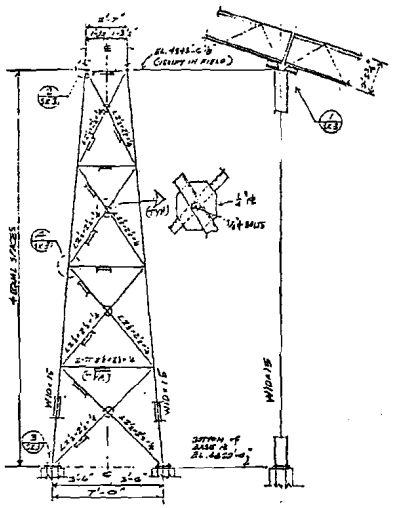
PROJECT NO.	DRAWING NUMBER	REV.
4011	01-D-2-106	

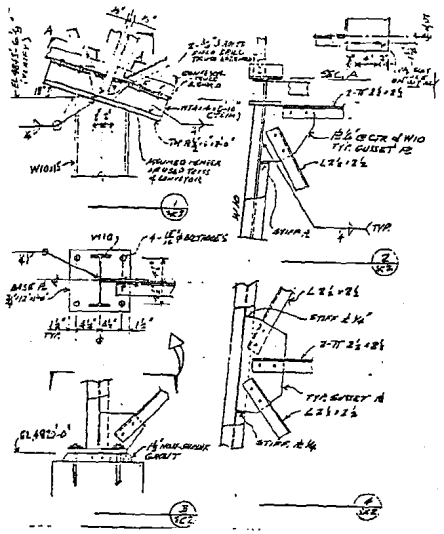


PLAN



ELEVATION





GENERAL NOTES

1. Construction materials:
   A. All structural steel shall be ASTM A36 steel.
   B. All connection bolts shall be 2-¾"ø with, A325 bolts with Bearing Type Connection except shown.
   C. All gusset and stiffener plates shall be ¾" plate Unless otherwise shown.
   D. All weld shall be fillet welds all around ø 70XX unless otherwise shown.
2. All dimensions and sizes for used conveyor trusses are either arbitrarily assumed or interpolated from the photographs taken by TVA SKRIVAN on 12/15/81
3. All dimensions shown must be verified in field prior to fabrication of the center bent.
4. All dimensions and details not shown, shall be determined in field.
5. All quality of construction, fabrication and erection shall meet the requirements of the following Codes:
   A. Specification for design, fabrication and erection of Structural Steel for Building by American Institute of Steel Construction, Nov. 1978.
   B. Welding in Building Construction by AWS, 1977

REV	DATE	BY	CLIENT	FIELD	VEND.	M.F.	REMARKS

DRAWING NO	REFERENCES

REV.	DATE	DESCRIPTION	BY	CKD.	APPV.	CLIENT

DESIGN BY	THIS DRAWING IS A PART OF P.O.'S C.
DRAWN BY	
CHECKED BY	
APPROVED-1	
APPROVED-2	

LURGI LURGI CORPORATION
WESTERN DIVISION

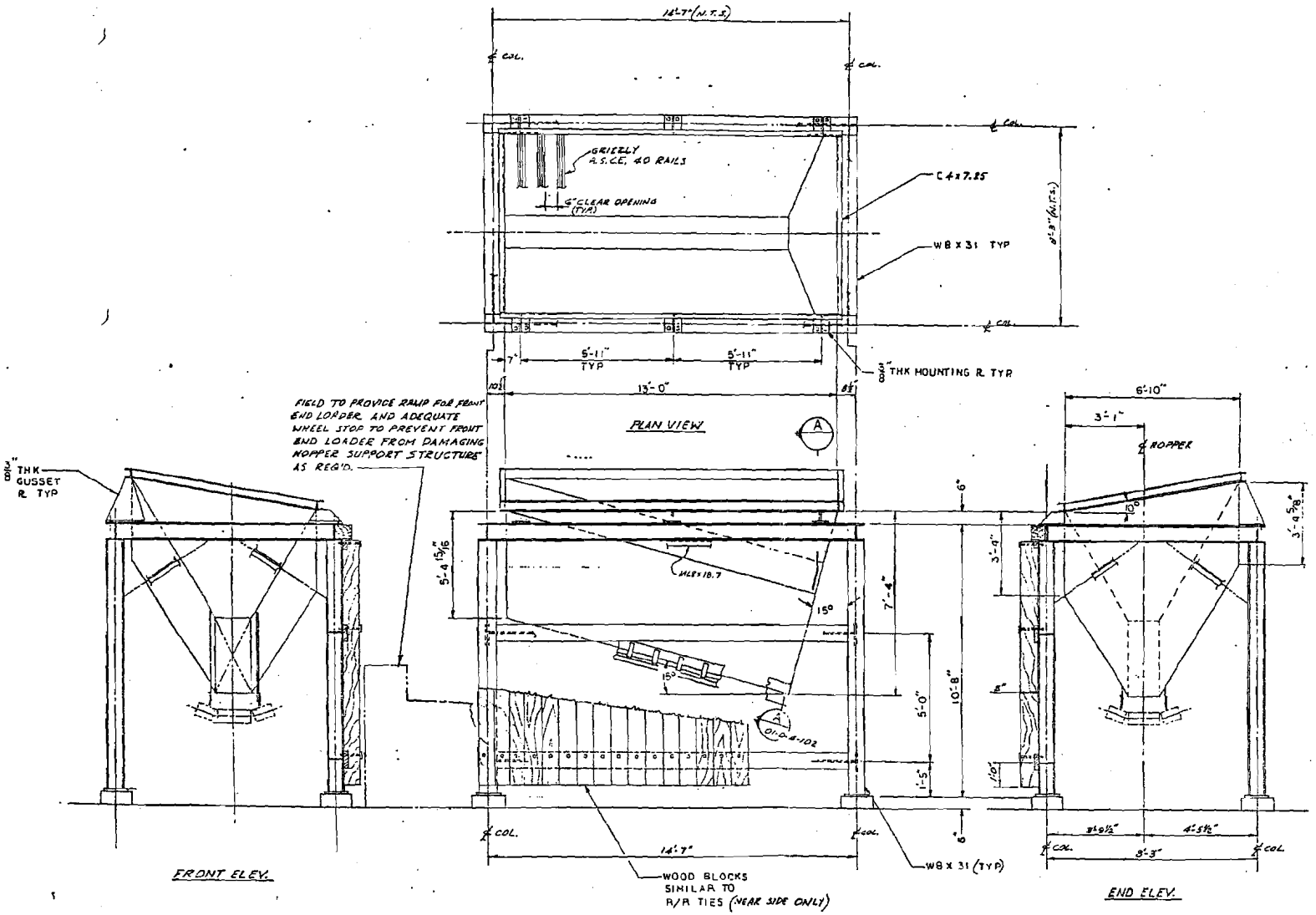
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE:

TITLE: MATERIAL HANDLING SYSTEM
STRUCTURAL STEEL
CONVEYOR-CENTER BENT DETAILS

PROJECT NO.	DRAWING NUMBER	REV.
4011	01-D-2-107	

MAR 08 1982



NOTE:
FOR DETAILS NOT SHOWN, REFER TO DWG. NO. 4011-01-D-4-102 AND SKETCH NO. SK1 THRU SK7 "RECEIVING HOPPER & AND SUPPORT DETAILS."

REV	DATE	BY	DESCRIPTION	CHD.	APPV.	CLIENT
1	10-10-82	SENIL SEN	ALL			

DESIGN BY
DRAWN BY KADE
CHECKED BY
APPROVED-1
APPROVED-2

THIS DRAWING IS A PART OF A O/S C.I.

MAR 08 1982

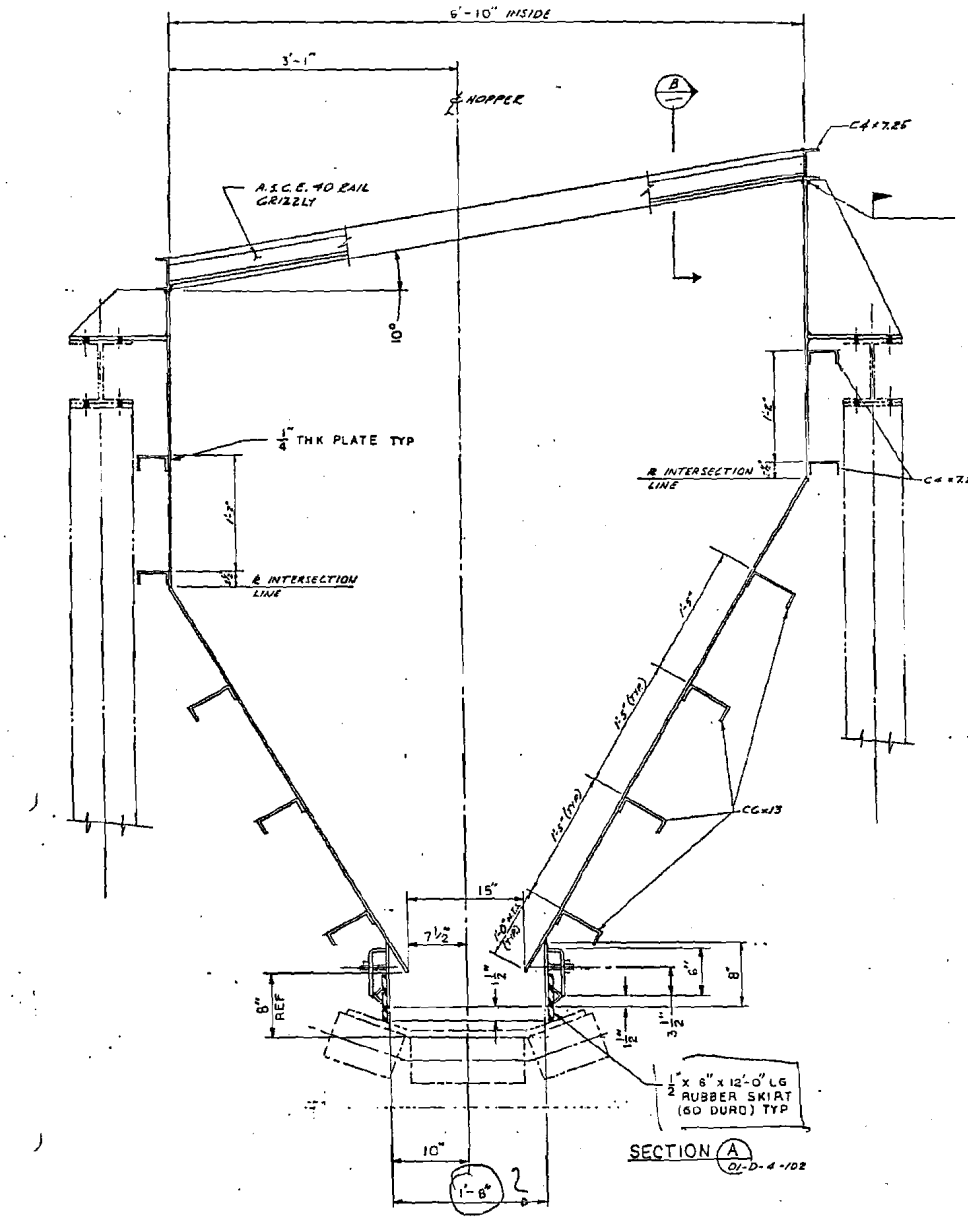
LURGI CORPORATION
WESTERN DIVISION

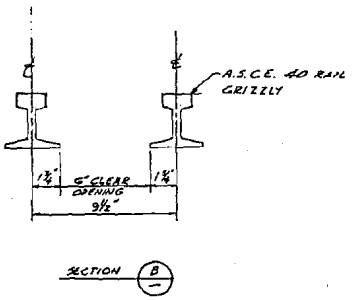
CLIENT: MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE 1/2" = 1'-0"

TITLE: RECEIVING HOPPER ASSY AND DETAILS

PROJECT NO.	DRAWING NUMBER	REV.
4011	01-0-4-101	5





NOTE:
FOR DETAILS NOT SHOWN, REFER TO DWG. NO 01-D-4-101 AND SKETCH NO. SK1 THRU SK7 "RECEIVING HOPPER AND SUPPORT DETAILS".

REV	DATE	BY	CLIENT | FIELD | VEND.	M.P.	REMARKS

DRAWING NO. | REFERENCES

REV	DATE	DESCRIPTION	BY	CKD.	APPV.	CLIENT
1	11-24-81	GEN'L REV.		KLL		

DESIGN BY
DRAWN BY KRDE
CHECKED BY
APPROVED-1
APPROVED-2

THIS DRAWING IS A PART OF K.R.T.S.C.

MAR 08 1982

LURGI LURGI CORPORATION
WESTERN DIVISION

CLIENT
MNR OF NEVADA CORPORATION
MARGARET HILLS

SCALE: 1½" = 1'-0"

TITLE
RECEIVING HOPPER-SECTION

PROJECT NO.	DRAWING NUMBER	REV.
4011	01-D-4-102	B