Portuguese Creek Mine

Gold, Platinum Group Metals and
Rare Elements Mine
Southern Idaho, USA

CONTACT

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Links *(from Web version only)*

- PDF including Appendices for Best Printing
- This document for the Web

Appendices for the Web *(from Web version only)*

- Assay/Analysis Summary
- Production Pro-Forma
- Capital Costs

Web version views best in
Google Chrome or Firefox



SALES SUMMARY WITH DOCUMENT LIST

Overview

Portuguese Creek Partnership recently completed the pilot stage of its environmentally-sound mining project 20 miles north of Gooding, Idaho. As a result, the Partnership has developed a ready-for-production, domestic (US) supply of platinum group metals for a growing global demand driven by the clean energy and environmental technology industries[i]. Its production of platinum and other metals will be derived from 50 million tons of ore reserve[ii] that has been delineated on 10 claims[iii] in a larger holding of over two square miles[iv] of 70 mining claims the Partnership leases[v] on US Bureau of Land Management (BLM) lands in Idaho.

Based on a customized assaying[vi] of core hole composite samples[vii] and pilot testing the halide leach process[viii] on the Partnership ore, the discounted value of all metals (platinum, gold, rhodium, palladium) in this proven reserve on just 10 of the 70 claims is over 50+ billion dollars[ix]. The Partnership claims also contain significant rare earth elements including cerium, lanthanum, niobium, rubidium and yttrium[x].

Portuguese Creek Partnership is ready to expand its existing facility[xi] and to move into full production[xii]. The existing plant is a fully permitted[xiii] process facility, with current operating authorization issued by the State and Local regulatory bodies. This facility can be expanded to accommodate a full production process facility with additional investment. An immediate use of funds will be to process the 2,600 tons of ore[xiv] already moved from the mine to the facility and to start the permitting process for full production of the 50 million ton reserve for future production. To receive full production permitting on the claims, an *Environmental Assessment (EA) and resulting FONSI is required*. Concurrent to the EA, the Partnership will develop and file a *Plan of Operations* outlining the methods to be used and the type of mining that will be done at the site. All filings will be to the Bureau of Land Management.



Figure 1 - 2,600-Ton Ore Pile in Facility Yard



Figure 2 - Existing Facility in Gooding, Idaho

Unique Process

The operator and majority limited partner of the *Portuguese Creek Partnership*, Resources Opportunity Corporation International (ROCI), has developed an eco-friendly, non-cyanide, "halide leach" process[xv], specifically designed for the Portuguese Creek Mine ore. This methodology uses brines, or salts to make the metals soluble during leaching. Once leached, the metals are collected onto precious metal-specific collection mediums (known as ion exchange resins[xvi]) and are made by Dow[xvii], Sybron and others). The leach process is a closed loop recycled system, eliminating excess water use, excess reagent costs, and minimizing waste.

High Level Pro-Forma

Mineralization Analyses	**Platinum**	**Gold**
Values for Plan (oz/ton)	**0.319**	**0.423**
Commodity Estimates (36-month Simple Moving Average - $/oz)	**$1,586**	**$1,384**
Ore Currently in Yard (tons of ore)	**2,600**	
Production (ounces of metal)	**829**	**1,100**
Immediate Revenue in Yard	**$1,315,428**	**$1,522,123**
TOTAL Immediate Revenue	**$2,837,552**	
Full Production Capacity (annual tons of ore)	**660,000**	
Full Production Capacity (annual ounces of metal)	**210,540**	**279,180**
Full Production Annual Revenue	**$333,916,440**	**$386,385,120**
TOTAL Future Annual Revenue	**$720,301,560**	
Estimated Reserve in Drilling Grid (tons of ore)	**50,000,000**	
Estimated Mine Life (years)	**75.76**	
TOTAL Reserve Value Estimate (discounted)	**$54,568,300,000**	

Detailed Pro-Formas

2,600 Tons in the Yard		Portion of Gross
Gross Revenues	$2,837,552	**100.00%**
Operating Cost	($91,000)	3.21%
Gross Margin	**$2,746,552**	**97%**
Refining Charges	($425,633)	15.00%
Operator Fees	($411,983)	14.52%
EBITDA	**$1,908,936**	**67%**
ROCI Royalty 1.5% EBITDA	($28,634)	1.01%
Pre-Tax Earnings	$1,880,302	66%

Full Production Year 10	2,000	tons per day
		Portion of Gross
Gross Revenues	**$720,301,560**	**100.00%**
Cost of Operations		
Cost to Mine / Blasting, Hauling, Crushing Grinding, Leaching	($16,500,000)	2.29%
General and Administrative / Salaries, Office Expense	($6,600,000)	0.92%
Cost of Goods Sold	**($23,100,000)**	**3.21%**
Gross Margin	**$697,201,560**	**97%**
Fees		
Management / Operator Fee	($104,580,234)	14.52%
Refining Costs	($108,045,234)	15.00%
Royalty Fee / ROCI	($7,268,641)	1.01%
Cost of Goods Sold & Fees	**($242,994,109)**	**33.74%**
PRE-TAX EARNINGS	**$477,307,451**	**66%**

The Project

Metal Production

Once the platinum, gold, rhodium and palladium are collected onto the resins, each metal will be refined to an upgraded product. This can be done at the mine site, off-site in a separate facility, or outsourced to precious metal refiners, of which there are several in the US, Canada, Mexico, Europe and Asia. The metals can then be readily sold into any of the commodity trading markets in the US, London, and Asia. Industrial buyers can also purchase directly through long-term off-take contracts.

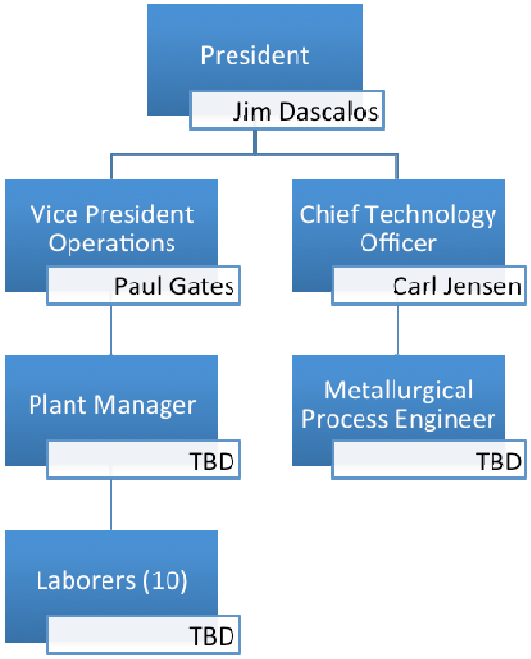
Partnership

The Partnership was formed in late 2001 by the geochemist that found the property, (the late) Dr. Michael B. Mehrtens[xviii] and ROCI as equal Limited Partners. ROCI provided metallurgical work through its contracted laboratories, and Dr. Mehrtens provided the geochemical understanding of the mineralization. The Partners completed two different private placement fundraisings, each after key determinations during its pre-feasibility studies. The total raised from private placement funding including loans from partners and assets purchased is approximately $2,250,000. The Managing Partners have continued supporting the effort by providing and utilizing Line of Credit funds during pilot testing in the amount of $150,000 and have secured loans used to purchase the land (9 acres), and facilities (12,000 sqft building), used for pilot testing in the amount of $202,000. The Partnership has eight Limited Partners, representing 97% of the Limited Partnership Interest. The other 3% is a non-dilutable interest held by the General Partner, Portuguese Creek Management LLC.



Management

Portuguese Creek Management LLC, a Colorado Limited Liability company, is responsible for all aspects of management of the Partnership. It currently has three managers[xix]: James Dascalos, Alex Duncan and Whit Allen. Paul Gates[xx] is ROCI's Chief Operation Officer, and both Yani Roditis and Dr. John Trefny serve on the Board of Advisors[xxi]. The Management of the Partnership has also utilized professional industry consultants throughout the project, and their respective reports and Curriculum Vitas are available below[xxii].



Resources Opportunity Corporation International Management Plan

President: *James Dascalos*

Mr. Dascalos will oversee all aspect of operations, including budgeting, payroll, timeline, permitting, financial and employee issues. Mr. Dascalos has operated the mine development for the Portuguese Creek Partnership since its inception in 2001, through both lab and pilot testing. Salaried Position - $450,000- $500,000 plus benefit package.

VP Operations: *Paul Gates / Mine Engineer*

Mr. Gates is our first choice for plant and related operations as he headed up both pilot studies previously. He has indicated that he is willing to do the same contingent on meeting salary requirements. Position will report to the President. Salaried Position - $260,000 to $300,000 plus benefits package.

Chief Technology Officer: *Carl Jensen / Metallurgist / Chemist*

Mr. Jensen is our fist choice for heading up the flow-sheet design and process development as Mr. Jensen was instrumental in all aspects of the previous test work as through lab scale testing and pilot testing. Position will report to the President. Salaried Position - $260,000 to $300,000 plus benefits package.

Metallurgical Process Engineer: *To be Hired*

This position will be a back up to Mr. Jensen and will be a key position in being able to assist Mr. Jensen through design and related development. Position will report to the President and Chief Technology Officer. Salaried Position - $225,000 - $275,000 per year first year plus small benefits package

Plant Manager: *To be Hired*

This position will be filled by recruiting someone familiar with plant management and quality controls. Position will report to Vice President of Operations. Salaried Position - $180,000 – 225,000 per first year, plus small benefits package.

General Hires: *Hourly and Salaried Positions to be filed*

ROCI, plans to hire from the general employment pool of readily-available in the immediate area: up to 50 - 100 individuals as unskilled and semi-skilled labor. Labor rates will range from $14 per hour to $35 per hour.

History

Exploration History

In 1999 Dr. Michael B. Mehrtens made an aerial photo study and geologic interpretation of the entire region of the Magic Reservoir Eruptive Center located in south-central Idaho, approximately 35 miles north of Twin Falls. The study revealed the Portuguese Creek area to be distinguished by the presence of volcanic vent structures similar to those in Blackhawk, Idaho. On the basis of the known mineralization at Blackhawk, Dr. Mehrtens suggested that the Portuguese Creek area may have similar mineral potential[xxiii].

Pre-Feasibility and Mining Claims

In October of 2001, Resources Opportunity Corporation International (ROCI) and Dr. Michael B. Mehrtens embarked on a precious metals exploration project to determine the pre-feasibility of a precious metals mineral occurrence in South Central Idaho. The Partnership initially staked ten mining claims with BLM in an area with known potential for mineral occurrences. Forty-four (44) surface samples were taken throughout the mining claims. The data from the initial surface sample assay tests[xxiv], using ROCI's proprietary methods, concluded that sufficient gold and platinum group metals were present, warranting further study. Based on these positive first laboratory results on the ten mining claims, the Partnership secured an additional 119 BLM mining claims, but subsequently reduced the total number of mining claims to 70[iv]. The General Partner believes that the Partnership's existing claims represent a large enough area to provide adequate protection from outside intervention by adverse claimants into the large potential prospect area.

Exploratory Drilling and Assay Material

The Partnership completed an exploratory drilling program of the Project in November 2002. A grid area was established that was approximately 800 feet wide by 1,200 feet long. A total of 12 core holes were drilled down to an average depth of approximately 250 feet. Comprehensive testing was conducted internally and externally with independent outside labs on the core samples. Testing showed that gold, palladium and platinum were uniformly disseminated throughout the test area. Statistical analysis on the limited early data indicated a strong connection for the common occurrence of these metals in the mineralization. Metallurgical and petrology studies have also indicated that these metals occur as naturally occurring alloys. Core Hole Assay averages composites were tested at 50-foot intervals. Approximately 300 assays were conducted on the twelve core hole samples[xxv]. All previous test work, including the work of independent assayers, confirmed the presence of platinum, gold and palladium.

Geology

The Portuguese Creek Claim Area

Portuguese Creek is a part of a much larger geological feature known as the Magic Reservoir Eruptive Center (Leeman 1982). The large geological feature is interpreted to be a caldera structure some 125 square miles in surface area, which was filled by the Moonstone Rhyolite in Pliocene time (ca: 5-3 Ma). The Moonstone Rhyolite is subdivided into three units known as the lower, middle and upper Moonstone Rhyolite[xxvi]. The lower and middle units fill the caldera while the upper unit was poured out from points along the ring fracture which bounds the caldera. Those localities where the upper Moonstone Rhyolite occurs at outcrop in some places are marked by elongate structures thought to be volcanic vents, similar to Blackhawk, Idaho. In other locations there is a single volcanic cone from which most of the lava ensued. Petrologically the Moonstone Rhyolite is a hybrid rock, the product of mixing two dissimilar parent magmas, including one that is siliceous (rhyolitic) and the other that is basic (basaltic). The upper unit is the most basic of the three, having the mineral olivine as an essential constituent, which is absent from the lower and middle units.

Portuguese Creek Geology

The property is located in the northwestern corner of Lincoln County, Idaho. The area is dominated by a conical peak, which rises to a height of approximately 5,908 feet, which is about 300 feet above the neighboring ground. Approximately 2,800 feet away to the southeast is a second smaller conical hill. Both are vents from which issued the mineralized lava flows. These two small volcanoes with their lava fields lie at the headwaters of Portuguese Creek from which the project takes its name.

Nature of Mineralization

The flow rocks are not hydrothermally altered, except for minor deuteric hematization. Because rock alteration is lacking and on the basis of other evidence, in particular a mineralogical study by Bowles (1999), as well as petrogaphic data (Honjo and Leeman 1987), it was tentatively concluded that the mineralization was syngenetic with its host rock. For example, the Bowles study showed that gold was present in the rock as minute films of native metal (up to 20 microns in size) attached to the surfaces of silicate minerals and found evidence for a gold, palladium, tin and aluminum mineral in grains up to 50 microns. The mode of occurrence of the gold and platinum group metals is compatible with the syngenetic hypothesis. As such, this would imply that the Olivine Rhyolite member of the Moonstone Formation to be a very attractive exploration target for gold, palladium and platinum. So far as is known, there are only two areas of outcrop where the Olivine Rhyolite is present, including Blackhawk and Portuguese Creek, Idaho. These two areas were mapped from aerial photographs and indicate that each is about two square miles. The petrology of the Moonstone fit the parameters for mantle plume activity. The release of the 1999 Bowles mineralogical report confirmed the nature of the mineralization as being derived from the earth's deep mantle. For comparative mineral occurrences, see this Norilsk Report[xxvii].

Appendices (links to PDFs)

- Assay/Analysis Summary
- Production Pro-Forma
- Capital Costs

Document List

ACCESS TO THE FOLLOWING FILES REQUIRES A LETTER OF INTENT FROM THE BUYER *DOCUMENTING FULL BUYER CONTACT INFORMATION.* FILES WILL BE PROVIDED BY NUMBER OR TITLE ON WRITTEN REQUEST.

[i] See "Energy Critical Elements: Securing Materials for Emerging Technologies"

[ii] See "Dimensions of Drill Hole and Ore Reserve Calculations"

[iii] See "Drill Locations on Claims Grid"

[iv] See "Portuguese Creek Current Claims Grid"

[v] See "August 31, 2010 BLM Receipt for Maintenance Fees for 70 Claims for 2010-2011 Assessment Year"

[vi] See "Richard Daniele – Precious Metals Project Report"

[vii] See "Mike Wendell – Assay Description on 44 Samples"

[viii] See "Paul Gates – Metallurgical Report"

[ix] See "5-Year Production Pro-Forma"

[x] See "Mineral Lab Rare Earth Element Report"

[xi] See "Pilot Facility Photos"

[xii] See "Full Production Use of Proceeds" – see Document ix

[xiii] See "Air, Special Use and Water Permit Letters"

[xiv] See "2000 Ton Haul October 2010" (600 tons were already there from earlier haul in 2003)

[xv] See "Dr. Mehrtens Feasibility Report"

[xvi] See "Recovery of Precious Metals from Acidic Halogen Leach Solutions"

[xvii] See DOWWaterandProcess.com/products/periodic_table/pt_pt_pd.htm

[xviii] See "Dr. Michael B. Mehrtens CV"

[xix] See "Manager Bios"

[xx] See "Paul Gates CV"

[xxi] See "Board of Advisors Bios"

[xxii] A0. Richard Daniele - MetMin Services Inc. (Metallurgical Engineer)

1. Full Project Report (he shadowed the internal test work and reported on the findings) – see Document vi
2. Gravimetric Results

3. Element Information – Platinum

B0. Dr. Michael B. Mehrtens - Principal (Geochemist)

1. Feasibility Study of the Portuguese Creek Mine (fundamental to existence of metals found) – see Document xv
2. Statistical Inference of Assay (surface assay shows metal and host rock relationships)

C0. Dr. Fredrick P. Schwarz (Geology / Geochemistry)

1. Logging Report (logged core hole samples as they were being drilled) – Not Available

D0. Paul A. Gates – ROCI (Mining Engineer)

1. Cumulative Reports Based on Metallurgical Extractive Work Since Inception (reserve estimate) – see Document viii

E0. Carl Jensen – Jensen Technologies (Chemistry / Metallurgist)

1. Bugbee Fire Assay (customized fire assay specific to platinum group metals)
2. Fumed Resin Analysis (post leach at Jensen Lab, metal absorption onto ion exchange resins)
3. Flame AA Analysis (continuation of Arrakis Leach test – post leach analysis, carbon absorption)
4. Leach Optimization Research Report (effectiveness of halide leach and ion exchange resins)
5. Torch Assay Report (additional fire assay method)
6. Torch Assay Procedures (simply describes the test procedure)
7. Halox Leach Test Plan

F0. Dr. Vern McMahon – Auro-Research Labs

1. Report on the Success of the PMART Assay System (comments on value of customized assay)

G. Greg Iseman – Iseman Consulting

1. Report Using Different Assay Techniques (independent report on core holes, five methods used)
2. Calculation of Rhodium (pro-forma using core hole assay from Iseman)
3. Sample 1 – Resin Leach Analysis (independent leach test using DOW and competitor resin)
4. Sample 2 – Resin Leach Analysis (independent leach test using DOW and competitor resin)
5. Sample 3 – Resin Leach Analysis (independent leach test using DOW and competitor resin)
6. Sample 5 – Resin Leach Analysis (independent leach test using DOW and competitor resin)
7. Report Using Different Assay Techniques (follow-up report)

H. Richard Kunter – Arrakis, Inc.

1. Column Carbon Adsorption Tests on Leach Solutions (early metal recovery tests using carbon)
2. Lab Report (solution assays regarding column leach test above)

I. Dr. Daryl Freter – Primary Gold

1. Leach Assay Results from Resin Collection (independent leach test - DOW and competitor resin)
2. Analytical Laboratory Report (independent leach test using DOW and competitor resin)

J. Mike Wendell – ROCI

1. Assay Report 1 (early assays on surface samples, description of assay method and results) – see Document vii
2. Leach Test 9
3. Leach Test 11
4. Core Result Averages (internal analysis)
5. PMART - Development of Precious Metals Advanced Reaction Technology
6. A Study of Iron Interference in Precious Metals AA Spectrometry (reducing iron interference)

K. Sandra Perry (Geologist)

1. Geologic Map of the Magic Reservoir Eruptive Center (independent view of lava flows)

L. Peggy Dalheim – The Mineral Lab

1. XRF Results – 2004 (shows mineralogy, non-precious metal content)
2. XRF Results – 2010 (shows that a significant amount of Rare Earth Elements exist in ore)

M. Dow Chemical – Larkin Lab (Dow Resin Testing)

1. Dow Resin Testing of 1.5 Ton Leached – May 15 through June 24, 2009 (2009 pilot results)

N. Dr. Sarah Appleby – Colorado School of Mines

1. QEMSCAN Analysis of the Portuguese Creek PGM Deposit (geo-chemistry of host rock)

O. James Dascalos – Portuguese Creek Management

1. Equipment Inventory (current inventory owned and physically located at facility in Idaho)
2. Building Loan (current loan balance for plant in Idaho – Guaranty Bank and Trust)
3. Line of Credit (current line of credit balance – Guaranty Bank and Trust)
4. Balance Sheet (ending December 31, 2010)
5. Debt Schedule (ending December 31, 2010)
6. State of Colorado – Certificate of Good Standing
7. 2009 Tax Return – Portuguese Creek Partners
8. 2009 Tax Return – Portuguese Creek Management

[xxiii] See National Geographic Mantle Plume Graphic for the history of volcanic activity along the Snake River.

[xxiv] See Surface Sample Assay – see Document vii

[xxv] See Core Result Averages – see Document xxiiJ4

[xxvi] See Dr. Mehrtens Diagram of Lava Flows

[xxvii] See Norilsk Report

Portuguese Creek Mine - Summary of Assays and Analysis

Date/ Lab/ Consultant	Source/ Method	Ounces per Ton					Notes	Source Document in PCM Exec Summary Files
		Gold (Au)	Silver (Ag)	Platinum (Pt)	Palladium (Pd)	Rhodium (Rh)		
Primary Core Hole Assays and Analyses								
2002-12-04/ Wendell/ Daniele	Core Holes/ Alkali Fusion Assay	0.1226	0.0033	1.4372	0.1773	0.0019	The Alkali Fusion Assay method for microcluster/ nanomolecular precious metal samples was developed into a repeatable and effective fire assay method, and later into an effective extraction procedure for the Batch Plant by Mr. Wendell, with a major advantage that the metals are converted into soluble hydroxides. Comparisons follow from Iseman.	22J4- Wendell PC Core Results Averages 2002-12-04/ 06- Daniele External Report 2003-06-30
2002-12-22/ Iseman Consulting	Core Holes/ Microwave	0.0274	0.0353	0.0471	0.0075	0.0077	The "Microwave Method" of analysis was developed by the Bureau of Mine and was used as their standard for years. Shows continue to improve…	22G1- Iseman Report 2002-12-22
2002-12-22/ Iseman Consulting	Core Holes/ Fusion-Microwave	0.0239	0.0648	0.0458	0.0073	0.0061	The Combination of these methods is starting to breakdown the molecular bonds inherent in the ore.	22G1- Iseman Report 2002-12-22
2002-12-22/ Iseman Consulting	Core Holes/ Alkali Fusion - Simlar to PMART	0.0316	0.1368	0.0781	0.0130	0.0031	The Alkali Fusion method of analysis is a non-selective method designed to breakdown all metals. Shows are improving still.	22G1- Iseman Report 2002-12-22
2002-12-22/ Iseman Consulting	Core Hole Composites/ Firing-Inquart-Electrowinning-Microwave	0.7705		1.3371	0.4680	0.8170	The Inquarting method was the primary method of analysis in years gone by. It requires a very skilled metallurgist to know how to quantify the additions and subtractions of the inquart.	22G1- Iseman Report 2002-12-22
2003-01-26/ Iseman Consulting	Core Hole Composites/ Firing-Inquart-Electrowinning-Microwave	1.5484		0.3705	0.9644	1.1112	"The Law of Inquartia:" like metals attract like metals. Shows are the best of all five analysis conducted by Iseman Consulting.	22G7- Iseman Metallurgical Report 2003-01-31
2003-01-14/ Auro-Research Laboratories/ McMahon	Core Hole Composites/ PMART- Precious Metals Advanced Reactor Technology	0.3900		3.0000	0.3600	0.2250	PMART non-selectively breaks down the bonds holding the precious metals together. Once liberated, they can be seen by AA Spectrometry or by EDXRF. It is possible that some of the other elemnts combined to give a false high reading on Platinum.	22F1- McMahon AURO Research Report Rev 2003-01-14+29
2009-06-24/ Dow Chemical/ Gates	Bulk Sample from around Core Hole 4/ PMART - Halide Leach	0.4250		0.3205	0.0845	0.2460	Significant results were found from the advanced assays made on the bulk sample by Dow's labs using the "Modified Halide Leach with Ion-Exchange Resins"	08- Metallurgical Report Gates 2010-03-15/ 22M1- Rogers Resin Results Rev5 2009-06-24
	Low	0.0239	0.0033	0.0458	0.0073	0.0019	The Gold average is nearly the same as the Gold measurement in the 2009 Dow analysis, and the Platinum average was higher, so the clearest and more conservative measurement to use in the Production Pro-Forma economic analysis is the Dow.	06- Daniele External Report 2003-06-30
	Median	0.2563	0.0501	0.3455	0.1309	0.1164		
	Average	**0.4174**	**0.0600**	**0.8295**	**0.2603**	**0.3023**		
	Count	8	4	8	8	8		
	High	1.5484	0.1368	3.0000	0.9644	1.1112		

Portuguese Creek Mine - Summary of Assays and Analysis

Date/ Lab/ Consultant	Source/ Method	Ounces per Ton					Notes	Source Document in PCM Exec Summary Files
		Gold (Au)	Silver (Ag)	Platinum (Pt)	Palladium (Pd)	Rhodium (Rh)		
Secondary Assays and Analysis								
2002-02-25/ Wendell/ Mehrtens	44 Random Surface Samples/ Alkali Fusion Assay	0.1336	0.0073	0.9894	0.1341	0.0213	From the first 10 claims. The Alkali Fusion Method is much better, as compared to the initial Iseman Assays following.	07- Comprehensive Assay Description on 44 Samples 2002-02-25
2002-12-22/ Iseman Consulting	Core Hole Composites/ Fire Assay	0.0003	0.0183	0.0002	0.0002	0.0000	Comparing "Standard Fire Assay" methods to other methods clearly showed, the limitations of its use over non-selective methods especially with ores with PGE's	22G1- Iseman Report 2002-12-22
2002-12-22/ Iseman Consulting	Core Holes/ Aqua Regia	0.0073	0.0311	0.0014	0.0023	0.0008	While the "Aqua Regia" method isn't a standard method used in labs, It is known to breakdown metals.	22G1- Iseman Report 2002-12-22
2003-06-15/ Wendell/ Mehrtens	44 Random Surface Samples/ Alkali Fusion Assay	1.5008		1.3463	0.1388		From the first 10 claims. Mehrtens discovered that Platinum was interfering in all the test work over the past 7 years, reducing the assay results on Gold by a factor of about 9. This factor was applied to Gold, but not to Palladium. Note that the Gold:Platinum ratio is about the same for these results as for the **Halide Leach results, in which Gold is *not* suppressed by Platinum**.	15- Mehrtens Report 2003-06-15
	Low	0.0003	0.0073	0.0002	0.0002	0.0000	The Gold and Platinum averages are similar to and verify the Core Hole Assays.	
	Median	0.0705	0.0183	0.4954	0.0682	0.0008		
	Average	**0.4105**	**0.0189**	**0.5843**	**0.0688**	**0.0074**		
	Count	4	3	4	4	3		
	High	1.5008	0.0311	1.3463	0.1388	0.0213		

Confidential Information. No distribution or copies of the information contained herein is authorized and authorized in writing by Portuguese Creek Managment LLC.

Revenue Pro-Pro-Forma / Production Plant

Portuguese Creek Partners, LLLP
Revenue Projections for

Updated 6/24/2012

Changeable Cell

2,000	Ton per Day Plant (2,000-10,000)
330	Days per Year

			Year 1	Year 2	Year 3	Year 4	Year 5	5-Year Totals
			7.9	500	1,000	1,500	**2,000**	
Production Level			0.3939%	25.00%	50.00%	75.00%	100%	
Tons			2,600	165,000	330,000	495,000	660,000	
Gross Revenues			**$ 2,837,552**	**$ 180,075,390**	**$ 360,150,780**	**$ 540,226,170**	**$ 720,301,560**	**$ 1,803,591,452**
Cost of Operations								
Cost to Mine @	$25.00	per ton	(65,000)	(4,125,000)	(8,250,000)	(12,375,000)	(16,500,000)	$ (41,315,000)
General/Administrative/Salaries/Office	$10.00	per ton	(26,000)	(1,650,000)	(3,300,000)	(4,950,000)	(6,600,000)	$ (16,526,000)
Total Cost of Goods Sold			**$ (91,000)**	**$ (5,775,000)**	**$ (11,550,000)**	**$ (17,325,000)**	**$ (23,100,000)**	**$ (57,841,000)**
Net Revenue			**$ 2,746,552**	**$ 174,300,390**	**$ 348,600,780**	**$ 522,901,170**	**$ 697,201,560**	**$ 1,745,750,452**
Management / Operator Fee @	15.00%	of Net	$ (411,983)	$ (26,145,059)	$ (52,290,117)	$ (78,435,176)	$ (104,580,234)	$ (261,862,568)
Refining Costs @	15.00%	of Gross	(425,633)	(27,011,309)	(54,022,617)	(81,033,926)	(108,045,234)	$ (270,538,718)
Net Revenue Less Mgt/Operator and Refining Fees			**$ 1,908,936**	**$ 121,144,023**	**$ 242,288,046**	**$ 363,432,069**	**$ 484,576,092**	**$ 1,213,349,166**
Royalty Fee / ROCI @	1.50%		$ (28,634)	$ (1,817,160)	$ (3,634,321)	$ (5,451,481)	$ (7,268,641)	$ (18,200,237)
Cost of Goods Sold & Fees			**$ (957,250)**	**$ (60,748,527)**	**$ (121,497,055)**	**$ (182,245,582)**	**$ (242,994,109)**	**$ (608,442,523)**
Earnings Held In Reserve To Build Next Level Plant above 2000 tons per day			$ -	$ -	$ -	$ -	$ -	
PRE-TAX EARNINGS			**$ 1,880,302**	**$ 119,326,863**	**$ 238,653,725**	**$ 357,980,588**	**$ 477,307,451**	**$ 1,195,148,929**

CAPITAL COST	**$ (89,695,000)**
SELF FUNDING	**-**
START UP COSTS	**(3,300,000)**
PURCHASE PRICE	**(480,000,000)**
TOTAL INVESTMENT	**(572,995,000)**

(NPV of **Earnings Held In Reserve** at **3.0%** - 0% to 50%)

5-year IRR 21%
10-year IRR 37%**

$ 1,195,148,929

Metals	**Oz/Ton***	**Minable Reserves @**	**50,000,000**	**Tons**				
Platinum	0.319	$ 25,296,700,000	Rhodium and Palladium not analyzed in the Pilot Test	$ 25,295,384,572	$ 25,211,905,462	$ 25,044,947,242	$ 24,794,509,912	$ 24,460,593,472
Gold	0.423	$ 29,271,600,000		$ 29,270,077,877	$ 29,173,481,597	$ 28,980,289,037	$ 28,690,500,197	$ 28,304,115,077
Rhodium		$ -		$ -	$ -	$ -	$ -	$ -
Palladium		$ -		$ -	$ -	$ -	$ -	$ -
Total Gross Value Reserve		**$ 54,568,300,000**		**$ 54,565,462,448**	**$ 54,385,387,058**	**$ 54,025,236,278**	**$ 53,485,010,108**	**$ 52,764,708,548**

Mine Life at 660,000 Tons mined per year = 75.76 Years

Values @ Pilot Plant Recovery Assay Averages

Assumptions			**Current Market Value**	**Metal Prices - 36-month Simple Moving Average 7/1/2011**
Metal	**Value**	**Per Ton**	**Metals Per ton**	**GoldPrice.org Live Chart and Kitco.com historical Charts (for Rhodium)**
				Ounces per Year
Platinum	$ 1,586.00	0.319	$ 505.93	210,540
Gold	$ 1,384.00	0.423	$ 585.43	279,180
Rhodium	$ 2,400.00	0.034		22,440
Palladium	$ 511.00	0.209		137,940
Total Gross Values per ton			**$ 1,091.37**	

Assumptions Production of Metal		**Mthly Tons # Of Ounces Metal Produced**	**Qtly Tons # Of Ounces Metal Produced**	**Annual Tons # Of Ounces Metal Produced**	**Total Revenues**
Platinum	ounces	17,545	52,635	210,540	$ 333,916,440
Gold	ounces	23,265	69,795	279,180	$ 386,385,120
Rhodium	ounces	1,870	5,610	22,440	$ 53,856,000
Palladium	ounces	11,495	34,485	11,495	$ 5,873,945
Total Ounces Produced:		**54,175**	**162,525**	**523,655**	**780,031,505**

*** Oz/ton scaled down to be conservative**
**** Straight-line Ramping to full production in year 10**

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Revenue Pro-Pro-Forma / Production Plant

Portuguese Creek Partners, LLLP
Revenue Projections for

2,000	Ton per Day Plant (2,000-10,000)
330	Days per Year

			Year 6	Year 7	Year 8	Year 9	Year 10	10-Year Totals
			2,000	2,000	2,000	2,000	2,000	
Production Level			100.0000%	100.00%	100.00%	100.00%	100%	
Tons			660,000	660,000	660,000	660,000	660,000	
Gross Revenues			**$ 720,301,560**	**$ 720,301,560**	**$ 720,301,560**	**$ 720,301,560**	**$ 720,301,560**	**$ 5,405,099,252**
Cost of Operations								
Cost to Mine @	$25.00	per ton	(16,500,000)	(16,500,000)	(16,500,000)	(16,500,000)	(16,500,000)	$ (123,815,000)
General/Administrative/Salaries/Office	$10.00	per ton	(6,600,000)	(6,600,000)	(6,600,000)	(6,600,000)	(6,600,000)	$ (49,526,000)
Total Cost of Goods Sold			**$ (23,100,000)**	**$ (23,100,000)**	**$ (23,100,000)**	**$ (23,100,000)**	**$ (23,100,000)**	**$ (173,341,000)**
Net Revenue			**$ 697,201,560**	**$ 697,201,560**	**$ 697,201,560**	**$ 697,201,560**	**$ 697,201,560**	**$ 5,231,758,252**
Management / Operator Fee @	15.00%	of Net	$ (104,580,234)	$ (104,580,234)	$ (104,580,234)	$ (104,580,234)	$ (104,580,234)	$ (784,763,738)
Refining Costs @	15.00%	of Gross	(108,045,234)	(108,045,234)	(108,045,234)	(108,045,234)	(108,045,234)	$ (810,764,888)
Net Revenue Less Mgt/Operator and Refining Fees			**$ 484,576,092**	**$ 484,576,092**	**$ 484,576,092**	**$ 484,576,092**	**$ 484,576,092**	**$ 3,636,229,626**
Royalty Fee / ROCI @	1.50%		$ (7,268,641)	$ (7,268,641)	$ (7,268,641)	$ (7,268,641)	$ (7,268,641)	$ (54,543,444)
Cost of Goods Sold & Fees			**$ (242,994,109)**	**$ (242,994,109)**	**$ (242,994,109)**	**$ (242,994,109)**	**$ (242,994,109)**	**$ (1,823,413,070)**
Earnings Held In Reserve To Build Next Level Plant above 2000 tons per day			$ -	$ -	$ -	$ -	$ -	$ -
PRE-TAX EARNINGS			**$ 477,307,451**	**$ 477,307,451**	**$ 477,307,451**	**$ 477,307,451**	**$ 477,307,451**	**$ 3,581,686,182**

		CAPITAL COST	**$ (89,695,000)**
		SELF FUNDING	**-**
		START UP COSTS	**(3,300,000)**
5-year IRR	**21%**	**PURCHASE PRICE**	**(480,000,000)**
10-year IRR**	**37%**	**TOTAL INVESTMENT**	**(572,995,000)**

								10-Year Total
			477,307,451	**477,307,451**	**477,307,451**	**477,307,451**	**477,307,451**	**$ 3,581,686,182**

Metals	**Oz/Ton***	**Minable Reserves @**	**50,000,000**					
Platinum	0.319	$ 25,296,700,000	Rhodium and Palladium not analyzed in the Pilot Test	$ 24,460,593,472	$ 24,126,677,032	$ 23,792,760,592	$ 23,458,844,152	$ 23,124,927,712
Gold	0.423	$ 29,271,600,000		$ 28,304,115,077	$ 27,917,729,957	$ 27,531,344,837	$ 27,144,959,717	$ 26,758,574,597
Rhodium		$ -		$ -	$ -	$ -	$ -	$ -
Palladium		$ -		$ -	$ -	$ -	$ -	$ -
Total Gross Value Reserve		**$ 54,568,300,000**		**$ 52,764,708,548**	**$ 52,044,406,988**	**$ 51,324,105,428**	**$ 50,603,803,868**	**$ 49,883,502,308**

Mine Life at 660,000 Tons mined per year = 75.76

Values @ Pilot Plant Recovery Assay Averages			**Current Market Value**
Assumptions			
Metal	**Value**	**Per Ton**	**Metals Per ton**
Platinum	$ 1,586.00	0.319	$ 505.93
Gold	$ 1,384.00	0.423	$ 585.43
Rhodium	$ 2,400.00	0.034	
Palladium	$ 511.00	0.209	
Total Gross Values per ton			**$ 1,091.37**

Assumptions Production of Metal		**Mthly Tons # Of Ounces Metal Produced**	**Qtly Tons # Of Ounces Metal Produced**
Platinum	ounces	17,545	52,635
Gold	ounces	23,265	69,795
Rhodium	ounces	1,870	5,610
Palladium	ounces	11,495	34,485
Total Ounces Produced:		**54,175**	**162,525**

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Portuguese Creek Management, LLC

Capital Costs

Use Existing Facility to Process the 2600 tons Build new facility 2000 - 10,000 tons per day		
Uses	**Tons per Day**	**2,000**
Pilot Plant		
Pilot Plant Operational Costs		$ 4,100,000
Equipment - Lab / Plant		$ 1,000,000
	Sub Total	**$ 5,100,000**
Claims / Drilling		
Additional Claim Procurement		$ 250,000
Additional Drilling		$ 200,000
Full Production Permitting / Filings		
Plan Of Operations		$ 250,000
Environmental Assessment		$ 150,000
Water Resource Evaluation		$ 150,000
Archeological Study		$ 125,000
Reclamation Plan		$ 120,000
Engineering		*$ 2,500,000*
Accrued Liabilities		$ 850,000
	Sub Total	**$ 4,595,000**
Production Cash Bonding		*$ 8,000,000*
Existing Facility / New Purchase		*$ 65,000,000*
Haulers, DumpTrucks, Excavators		*$ 7,000,000*
		$ 80,000,000
	Sub Total	**$ 89,695,000**
Start-Up Costs		*$ 3,300,000*
	Total including carrying costs	**$ 92,995,000**