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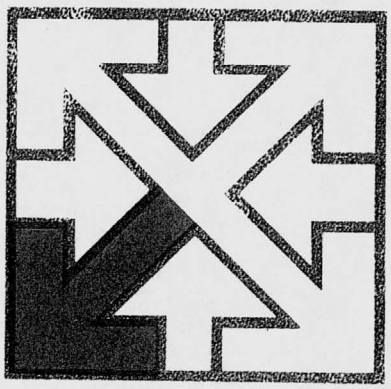
0035



Southwestern Exploration Associates

Mineral Exploration & Natural Resource Consultants

Tucson, Arizona

Heap Leach Test

Pad Heap Leach Test

May 11 - 12, 1987

Average Effluent 36 samples

Au .0034

Ag .143

2.72 Troy oz Au in solution

114.40 Troy oz Ag in solution

40 Hours Running Time @ 20 Tons per Hour

500 Tons ore Yield: .00544 oz/ton Au

.2288 oz/ton Ag

400 Tons ore Yield: .0068 oz/ton Au

.286 oz/ton Ag

@ 22.5 Tons solution / Hour

	Yield 500 Tons	Yield 400 Tons
3.06 Troy oz Au	.00612	.00765
128.70 Troy oz Ag	0.25	.32175

Pad Heap Leach Test

May 11 - 12, 1987

500 Tons Tailings
Sprayed with fresh Water @ 90 gpm

Effluent (average of 36 samples) Au .0034
Ag .143

Running Time — 40 Hours

Au in solution 3.06 Troy oz
Ag in solution 128.70 Troy oz

Yield from 500 Tons (Est.) Tailings

Au .00765 Troy oz
Ag .32175 Troy oz

LEACH PAD TEST

500 Tons Tailing
40 gpm spray

COCHISE SILVER MINES
DAILY PLANT REPORT

DATE: 5/12/87
page 1 of 2

TIME	PREG Au	PREG Ag	BARREN Au	BARREN Ag	COMMENTS
1000	TR	.05			
1100	TR	.04			
1200	TR	.03			
1300	TR	.05			
1400	TR	.03			
1500	TR	.07			
1600	TR	.04			
1700	TR	.06			
1800	TR	.06			
1900	TR	.04			
2000	TR	.05			
2200	TR	.02			
2300	TR	.03			
2400	TR	.01			
0100	TR	.01			
0200	TR	.01			
0300	TR	.09			
0400	TR	.01			
0500	TR	.03			
0800	TR	.01			
0900	TR	.01			

500 Tons Tailings
90 gpm spray

Pad Leach Test

COCHISE SILVER MINES

DAILY PLANT REPORT

DATE: 11 May 87

TIME	PREG Au	PREG Ag	BARREN Au	BARREN Ag	COMMENTS
1400	.011	.37			Tails Rnd .008 .19
1415	.011	.38			
1430	.011	.38			
1445	.008	.27			
~~1500~~		~~.~~			
1515	.008	.26			
1530	.	~~.~~			
1545	.006	.20			
1600	.006	.20			
1630	.008	.27			
1700	.014	.48			
1800	.012	.40			
1900	.008	.26			
2000	.006	.22			
2100	.006	.22			
2200	.004	.18			
2300	.004	.14			Tails Rnd .007 .17

500 Ton Heap Leach

Yield Au .00765 Troy oz/ton

Ag .32175 Troy oz/ton

Plant

Yield Au .00649

Ag .069

Carbon-In-Pulp (10% of Total Feed, (est))

Au .0295

Ag .29

Head Samples - Bottle Roll

		Au	Ag	CN	PH
4 JUN	1	.003	.15		
	2	Nil	Nil		
	3	.003	.08		
	4	Nil	.03		
	5	Nil	TN		
	6	.010	.21		
	7	Nil	.01		
	8	Nil	Nil		
	9	.008	.20		
	10	Nil	TN		
	11	.003	.06		
	12	.003	.07		
Settling Tank Slimes 0615		.004	.12		
Mud Return		.005	.14		

Rock Testing

WESTERN TECHNOLOGIES INC.
1827 South Paseo San Luis
Sierra Vista, Arizona 85635
(602) 458-0364

LABORATORY REPORT

PHYSICAL PROPERTIES OF SOILS

Client: PBR Minerals, Inc.
P.O. Box 370
Tombstone, Arizona 85638

Job No. ________
Lab/Invoice No. 29980139
Date of Report 02-18-88
Reviewed By [signature]

Project: Quality Control

Location: 950 Skyline Drive, Tombstone Az — Sampled By: Mr. Gary Lindroos/PBR — Date: 02-18-88

Type of Material: Oversize Material — Submitted By: Mr. Gary Lindroos/PBR — Date: 02-18-88

Source of Material: Stacker Belt — Authorized By: Mr. Gary Lindroos — Date: 02-18-88

Sieve Analysis, ASTM D422-

AB	Sieve Size	% Passing Accumulative	Specification: Chips	Specification: Sand
	3"			
	2½"			
	2"			
100	1½" / 1⅛			
99	1"			
99	¾"	100		
88	½"	88		
75	⅜"	74	100	100
60	¼"	56	63	97
51	No. 4	46	23	86
36	8	31	1	52
32	10	28	0.4	45
24	16	20		29
16	30	12		16
13	40	8		11
10	50	6		7
	100	6		1
5.0	200	1.5		.7
	Finer than 200 ASTM D1140-			

Soil Classification

Liquid Limit and Plasticity of Soils — ASTM D4318- — * NON-PLASTIC — LL = ____ PI = ____

Moisture - Density Relations — ☐ ASTM D698- ; ☐ ASTM D1557- ; Method ____ — Maximum Dry Density, pcf ____ — Optimum Moisture, % ____

Specific Gravity of Soils (minus No. 4 material) — ASTM D854- — Specific Gravity ____

Resistance 'R' Value of Compacted Soils — ASTM D2844- — 'R' Value ____

Other: * Could not perform liquid limit and plastic limit tests due to sandy nature of material.

ASTM - C-33

Specs for:

Copies to: Addressee (2)

ASTM C144 →

Mortar Sand		Concrete Agg	
4	100	3/8	100
8	95-100	4	95-100
16	70-100	8	80-100
30	40-75	16	50-85
50	20-40	30	25-60
100	10-25	50	10-30
200	0-10	100	2-10
		Limits	3.0 Max
			3.0 Max
			5-7

Bol Patc 748 2262

WESTERN TECHNOLOGIES INC.

1827 South Paseo San Luis
Sierra Vista, Arizona 85635
(602) 458-0364

LABORATORY REPORT

PHYSICAL PROPERTIES OF SOILS

Client PBR Minerals, Inc.
P.O. Box 370
Tombstone, Arizona 85638

Job No. _____
Lab/Invoice No. 29980139
Date of Report 02-18-88
Reviewed By Jan Cipares

Project Quality Control
Location 950 Skyline Drive, Tombstone Az
Sampled By Mr. Gary Lindroos/PBR Date 02-18-88
Type of Material Oversize Material
Submitted By Mr. Gary Lindroos/PBR Date 02-18-88
Source of Material Stacker Belt
Authorized By Mr. Gary Lindroos Date 02-18-88

Sieve Analysis, ASTM D422-

Sieve Size	% Passing Accumulative	Specification
3"		
2½"		
2"		
1½"		
1"		
¾"	100	
½"	88	
⅜"	74	
¼"	56	
No. 4	46	
8	31	
10	28	
16	20	
30	12	
40	8	
50	6	
100	6	
200	1.5	
Finer than 200 ASTM D1140-		

Soil Classification

Liquid Limit and Plasticity of Soils — LL = _____
ASTM D4318- * NON-PLASTIC — PI = _____

Moisture - Density Relations — Maximum Dry Density, pcf _____
☐ ASTM D698- ; ☐ ASTM D1557- ; Method _____ — Optimum Moisture, % _____

Specific Gravity of Soils (minus No. 4 material)
ASTM D854- — Specific Gravity _____

Resistance 'R' Value of Compacted Soils
ASTM D2844- — 'R' Value _____

Other: * Could not perform liquid limit and plastic limit tests due to sandy nature of material.

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SE % Sand & Clay
DG

WESTERN TECHNOLOGIES INC.

1827 South Paseo San Luis
Sierra Vista, Arizona 85635
(602) 458-0364

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client PBR Minerals, Inc.
P.O. Box 370
Tombstone, Arizona 85638

Job No. _____
Lab/Invoice No. 29980378
Date of Report 04-28-88
Reviewed By _____

Project Quality Control
Location PBR Minerals, Inc. Sampled By Gary Lindroos/PBR Date 04-27-88
Type of Aggregate Crushed and Washed Submitted By Mike Ashworth/PBR Date 04-27-88
Source of Aggregate Stockpile PRB Minerals Authorized By Mr. Mike Ashworth Date 04-27-88

Sieve Analysis, ASTM C136-

Sieve Size	% Passing Accumulative	Specification
4"		
3"		
2"		
1½"		
1⅛"		
1"		
¾"		
½"		
⅜"		
¼"		
No. 4		
8		
10		
16		
30		
40		
50		
100		
Finer than 200 ASTM C117-		

Test Standards are ASTM unless otherwise noted.

Test		Result	Specification	Test STD
Fineness Modulus				C125-
Dry Rodded Unit Weight, pcf				C29-
Lightweight Pieces, %				C123-
Clay Lumps and Friable Particles				C142-
Organic Impurities				C40-
Sand Equivalent Value		40		C2419-
Resistance to Abrasion	% Wear, rev.			C131- Grading
	% Wear, 500 rev.			
	% Wear, rev.			C535- Grading
	% Wear, 1000 rev.			
Scratch Hardness, % by: Weight | Count		|	|	C235-
Fractured Faces, % by: Weight | Count		|	|	
Liquid Limit | Plasticity Index		|	|	D4318-
Cleanness Value				Calif. 227-
Moisture Density Relations	Max. Dry Density, pcf		☐ D698- ☐ D1557- ☐ AASHTO T99- ☐ AASHTO T180-	
	Optimum Moisture, %			
	Method			
Specific Gravity	Absorption, %		☐ C127- ☐ C128-	
	Bulk (Dry)			
	Bulk (SSD)			
	Apparent			

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319

WESTERN TECHNOLOGIES INC.

1827 South Paseo San Luis
Sierra Vista, Arizona 85635
(602) 458-0364

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client PBR Minerals
P.O. Box 370
Tombstone, Arizona 85638

Job No. _____
Lab/Invoice No. 29980384 & 430
Date of Report 04-28-88
Reviewed By Gary R. West

Project Quality Control
Location Tombstone, Arizona — Sampled By Gary Lindroos/PBR — Date 04-28-88
Type of Aggregate Aggregate — Submitted By Gary Lindroos/PBR — Date 04-28-88
Source of Aggregate Stockpile at PBR Minerals — Authorized By Mr. Gary Lindroos — Date 04-28-88

Sieve Analysis, ASTM C136-

Sieve Size	% Passing Accumulative	Specification
4"		
3"		
2"		
1½"		
1⅛"		
1"	100	
¾"	99	
½"	66	
⅜"	31	
¼"	10	
No. 4	6	
8	3	
10	3	
16	2	
30	0.8	
40	0.6	
50	0.4	
100	0.2	
200	0.1	
Finer than 200 ASTM C117-		

Test Standards are ASTM unless otherwise noted.

Test		Result		Specification	Test STD
Fineness Modulus					C125-
Dry Rodded Unit Weight, pcf					C29-
Lightweight Pieces, %					C123-
Clay Lumps and Friable Particles					C142-
Organic Impurities					C40-
Sand Equivalent Value		95			C2419-
Resistance to Abrasion	% Wear, 100rev.	4			C131- Grading
	% Wear, 500 rev.	18			
	% Wear, rev.				C535- Grading
	% Wear, 1000 rev.				
Scratch Hardness, % by: Weight | Count					C235-
Fractured Faces, % by: Weight | Count		91			AZ 212d
Liquid Limit | Plasticity Index		NON-PLASTIC			D4318-
Cleanness Value					Calif. 227-
Moisture Density Relations	Max. Dry Density, pcf			☐ D698- ☐ D1557- ☐ AASHTO T99- ☐ AASHTO T180-	
	Optimum Moisture, %				
	Method				
Specific Gravity Coarse & Fine	Absorption, %	COARSE 2.5	FINE 3.6	☒ C127- ☒ C128-	
	Bulk (Dry)	2.46	2.41		
	Bulk (SSD)	2.52	2.50		
	Apparent	2.62	2.64		

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WESTERN TECHNOLOGIES INC.

1827 South Paseo San Luis
Sierra Vista, Arizona 85635
(602) 458-0364

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client PBR Minerals
P.O. Box 370
Tombstone, Arizona 85638

Job No. _____
Lab/Invoice No. 29980384 & 430
Date of Report 04-28-88
Reviewed By Gary R. West

Project Quality Control
Location Tombstone, Arizona — Sampled By Gary Lindroos/PBR — Date 04-28-88
Type of Aggregate Aggregate — Submitted By Gary Lindroos/PBR — Date 04-28-88
Source of Aggregate Stockpile at PBR Minerals — Authorized By Mr. Gary Lindroos — Date 04-28-88

Sieve Analysis, ASTM C136-

Sieve Size	% Passing Accumulative	Specification
4"		
3"		
2"		
1½"		
1⅛"		
1"	100	
¾"	99	
½"	66	
⅜"	31	
¼"	10	
No. 4	6	
8	3	
10	3	
16	2	
30	0.8	
40	0.6	
50	0.4	
100	0.2	
200	0.1	
Finer than 200 ASTM C117-		

Test Standards are ASTM unless otherwise noted.

Test		Result		Specification	Test STD
Fineness Modulus					C125-
Dry Rodded Unit Weight, pcf					C29-
Lightweight Pieces, %					C123-
Clay Lumps and Friable Particles					C142-
Organic Impurities					C40-
Sand Equivalent Value		95			C2419-
Resistance to Abrasion	% Wear, 100rev.	4			C131-
	% Wear, 500 rev.	18			Grading
	% Wear, rev.				C535-
	% Wear, 1000 rev.				Grading
Scratch Hardness, % by: Weight | Count		|		|	C235-
Fractured Faces, % by: Weight | Count		91 |		|	AZ 212d
Liquid Limit | Plasticity Index		NON-PLASTIC |			D4318-
Cleanness Value						Calif. 227-
Moisture Density Relations	Max. Dry Density, pcf			☐ D698- ☐ D1557- ☐ AASHTO T99- ☐ AASHTO T180-	
	Optimum Moisture, %				
	Method				
Specific Gravity Coarse & Fine	Absorption, %	COARSE 2.5	FINE 3.6	☒ C127- ☒ C128-	
	Bulk (Dry)	2.46	2.41		
	Bulk (SSD)	2.52	2.50		
	Apparent	2.62	2.64		

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LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client PBR Minerals
P.O. Box 370
Tombstone, Arizona 85638

Job No. _____
Lab/Invoice No. 29980561
Date of Report 06-13-88
Reviewed By Jan Cipara

Project Quality Control

Location PBR Plant, Tombstone Arizona — Sampled By Gary Lindroos/PBR — Date 06-13-88

Type of Aggregate Cover material — Submitted By Gary Lindroos/PBR — Date 06-13-88

Source of Aggregate PBR Stockpile — Authorized By Mr. Gary Lindroos — Date 06-13-88

Sieve Analysis, ASTM C136-

Sieve Size	% Passing Accumulative	Specification
4"		
3"		
2"		
1½"		
1⅛"		
1"		
¾"		
½"		
⅜"	100	
¼"	53	
No. 4	16	
8	2	
10	2	
16	2	
30	1	
40	1	
50	0.7	
100		
Finer than 200 ASTM C117-		

Test Standards are ASTM unless otherwise noted.

Test		Result	Specification	Test STD
Fineness Modulus				C125-
Dry Rodded Unit Weight, pcf				C29-
Lightweight Pieces, %				C123-
Clay Lumps and Friable Particles				C142-
Organic Impurities				C40-
Sand Equivalent Value				C2419-
Resistance to Abrasion	% Wear, rev.			C131-
	% Wear, 500 rev.			Grading
	% Wear, rev.			C535-
	% Wear, 1000 rev.			Grading
Scratch Hardness, % by: Weight | Count		|	|	C235-
Fractured Faces, % by: Weight | Count		|	|	
Liquid Limit | Plasticity Index		|	|	D4318-
Cleanness Value				Calif. 227-
Moisture Density Relations	Max. Dry Density, pcf		☐ D698- ☐ D1557- ☐ AASHTO T99- ☐ AASHTO T180-	
	Optimum Moisture, %			
	Method			
Specific Gravity	Absorption, %		☐ C127- ☐ C128-	
	Bulk (Dry)			
	Bulk (SSD)			
	Apparent			

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1827 South Paseo San Luis
Sierra Vista, Arizona 85635
(602) 458-0364

LABORATORY REPORT

PHYSICAL PROPERTIES OF AGGREGATES

Client PBR Minerals
P.O. Box 370
Tombstone, Arizona 85638

Job No. _____
Lab/Invoice No. 29980651-3
Date of Report 07-01-88
Reviewed By Jan Graves

Project Quality Control

Location Tombstone, Arizona — Sampled By WT/Hudson — Date 07-01-88

Type of Aggregate Fine Aggregate — Submitted By WT/Hudson — Date 07-01-88

Source of Aggregate Stockpile PBR Minerals — Authorized By Mr. Gary Lindroos — Date 07-01-88

Sieve Analysis, ASTM C136-

Sieve Size	% Passing Accumulative	Specification
		ASTM C144 MANUFACTURED SAND
3"		
2"		
1½"		
1⅛"		
1"		
¾"		
½"		
⅜"	100	
¼"	97	
No. 4	86	100
8	52	95-100
10	45	
16	29	70-100
30	16	40-75
40	11	
50	7	20-40
100	1	10-25
Finer than 200 ASTM C117-	0.7	0-10

Test Standards are ASTM unless otherwise noted.

Test		Result	Specification	Test STD
Fineness Modulus				C125-
Dry Rodded Unit Weight, pcf				C29-
Lightweight Pieces, %				C123-
Clay Lumps and Friable Particles				C142-
Organic Impurities				C40-
Sand Equivalent Value				C2419-
Resistance to Abrasion	% Wear, rev.			C131- Grading
	% Wear, 500 rev.			
	% Wear, rev.			C535- Grading
	% Wear, 1000 rev.			
Scratch Hardness, % by: Weight | Count		|	|	C235-
Fractured Faces, % by: Weight | Count		|	|	
Liquid Limit | Plasticity Index		|	|	D4318-
Cleanness Value				Calif. 227-
Moisture Density Relations	Max. Dry Density, pcf		☐ D698- ☐ D1557- ☐ AASHTO T99- ☐ AASHTO T180-	
	Optimum Moisture, %			
	Method			
Specific Gravity	Absorption, %		☐ C127- ☐ C128-	
	Bulk (Dry)			
	Bulk (SSD)			
	Apparent			

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319

WESTERN TECHNOLOGIES INC.

1827 South Paseo San Luis
Sierra Vista, Arizona 85635
(602) 458-0364

LABORATORY REPORT

Client: PBR Minerals
P.O. Box 370
Tombstone, Arizona 85638

Job No.:
Lab./Invoice No.: 29980750
Date of Report: 08-09-88
Reviewed By:

Project: Materials Testing
Location: PBR Minerals
Material/Specimen: Aggregate — Sampled By: WT/Schneider — Date: 08-09-88
Source: Leach Piles — Submitted By: WT/Schneider — Date: 08-09-88
Test Procedure: ASTM D1556, AASHTO T217 — Authorized By: Mr. Dusty Escapule — Date: 08-09-88

RESULTS

LOCATION	MOISTURE CONTENT, % TOTAL SAMPLE	PERCENT + #4 MATERIAL	WET DENSITY, pcf	DRY DENSITY, pcf
LP 9	4.3	60	124.4	119.2
LP 6	4.8	40	130.9	124.8
LP 4	6.2	50	124.3	117.1
LP 1	3.1	54	124.8	121.0
LP 0	4.4	32	136.6	130.9

Copies to: Addressee (3)

SOIL/AGGREGATE FIELD DENSITY - SAND CONE METHOD

Type of Material ABC Job No.

Source of Material LPR - LP Stock Pile Lab./Invoice No.

Test Locations Designated By Dusty Escapule Tested/Calc. By Dave Date 8-9-88

Moisture/Density Per Method ◄ Reviewed By Date

Test Hole No.	1	2	3	4	5
Date of Test					
Location of Test Hole					
Elevation of Test †					
Depth of Fill					
(1) Initial wt. Apparatus and sand, lbs.					
(2) Final wt. Apparatus and sand, lbs.					
(3) Total Wt. Sand Used, lbs. (1) - (2)					
(4) Wt. Sand in Funnel and Plate, lbs.					
(5) Wt. Sand to Fill Hole, lbs. (3) - (4)					
(6) Bulk Density of Sand, pcf					
(7) Volume of Hole, cu. ft. (5) ÷ (6)					
(8) Wt. Mtrl. from Hole, lbs.					
(9) Wet Density, pcf (8) ÷ (7)					
Specific Gravity of + #4 Mtrl.					
(10) Wt. of + #4 Mtrl.					
% of + #4 Mtrl. Lab./Field [(10) ÷ (8)] × 100					
Moisture/Density Lab. No.					
Optimum Moisture, %					
Max. Dry Density (lab), pcf					
(11) Max. Dry Density (corr.), pcf See Chart					
(12) Wet Wt. Moisture Sample, gms					
(13) Dry Wt. Moisture Sample, gms					
(14) % Moisture - #4 Mtrl. Speedy or $\frac{(12)-(13)}{(13)} \times 100$	9.2	7.4	11.4	5.6	6.0
(15) % Moisture, Tot. Sample Corr. (14) See Chart	4.28	4.84	6.5	3.1	4.2
(16) Report % Moisture: Use (14) if M/D Method A or B; use (15) if M/D Method C or D					
(17) Dry Density, pcf $\frac{(9)}{(15)+100} \times 100$	119.2	124.3	117.1	120.0	130.9
Relative Compaction, % $\frac{(17)}{(11)} \times 100$					
Within Specifications? Circle Answer	yes no 20	yes no 20	yes no 20	yes no 20	yes no 20
Comments*					

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. _____
14. Tested ASTM D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock Correction applied to maximum dry density per AASHTO T-224
18. Other _____
19. Test Locations Shown on Accompanying Site Plan
20. Specifications Unknown

† Datum _____

WESTERN TECHNOLOGIES INC.

Sieve Size	AB % Passing	Chips % Passing	Sand % Passing
1 1/8"	100		
1"	99		
3/4"	99		
1/2"	88		
3/8"	75	100	100
1/4"	60	63	97
No. 4	61	25	86
8	36	1	52
10	32	0.4	45
16	24		29
30	16		16
40	13		11
50	10		7
100	6		1
200	3.0		0.7

Sieve Size	Specs: ASTM C144 Mortar Sand	Specs: ASTM C-33 Concrete Aggregate
3/8"	—	100
No. 4	100	95-100
8	95-100	80-100
16	70-100	50-85
30	40-75	25-60
50	20-40	10-30
100	10-25	2-10
200	0-10	—

Acceptable ↓ 5-7 for Crushed Rock

Pit/Grab Assay

COCHISE SILVER MINES, INC.

Laboratory Analysis

Fire Assays

Date: 2-1-88

Sample Identification	Au oz./TON	Ag oz./TON							
GC Trench 1	.015	1.21							
CG Trench 2	.020	1.34							
GC Trench 3	.005	.54							
GC Trench 4	Tr	.28							
GC 1A	Tr	.16							
GC 2A	Tr	.32							
GC Drill Hole #3	Tr	.10							
Contention Top Bench 300's of fm	.010	1.56							
Schissler Special 1-12-88	.025	5.76							

REMARKS:

PIT ASSAY / GRAB SAMPLES

	Date:	Muffle #:	Fire Assay		Bottle Roll		
	Sample ID	Dore'	Au	Ag	Au	Ag	
1	Flora Morrison 300' S of shaft Lower Bench		.040	2.82			6-23-88
2	" " 200' S of shaft Low Bench		.010	1.56			2-1-88
3							
4							
5							
6							
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26							
27							
28							

Date: 4-20-89 / 4-21-89

PIT SAMPLES

Sample Identification	Au	Ag
9960N 7-11	.002	.04
11-18	.002	.04
18-23	.002	.03
30-36	TR	.07
38-41	TR	.10
41-47	.007	.11
47-52	.003	.11
52-58	.010	.12
71-75	.092	.82
9980N 0-7	TR	.14
7-11	TR	.25
11-18	.006	.46
18-22	TR	.14
22-27	.004	.56
27-33	TR	.26
33-37	TR	.29
37-43	TR	.22
43-51	.014	.36
51-59	.008	.84
59-65	.004	.20

REMARKS:

Date: 4-21-89

Sample Identification		Bottle Roll Au	Bottle Roll Ag		Fire Assay Au	Fire Assay Ag
9980	0-7	Tr	.14		Tr	.25
	7-11	Tr	.25		.002	.45
	11-18	.006	.46		.006	.50
	18-22	Tr	.14		.004	.24
	22-27	.004	.56		.004	.70
	27-33	Tr	.26		Tr	.38
	33-37	Tr	.29		.002	.46
	37-43	Tr	.22		.001	.34
	43-51	.014	.36		.014	.41
	51-59	.008	.84		.008	.84
	59-65	.004	.20		.004	.26
	65-70	Tr	.14		Tr	.23
	70-77	.010	.82		.011	.82
	77-84	.004	.36		.007	.45
	84-90	.002	.15		.002	.27
	90-102	Tr	.04		Tr	.08
	102-107	.002	.06		.002	.06

REMARKS:

Date: 4-21-89

PIT SAMPLES

Sample Identification		Au	Ag
9980 N	65-70	TR	.14
	70-77	.010	.82
	77-84	.004	.36
	84-90	.002	.15
	90-102	TR	.04
	102-107	.002	.06
10020 N	0-5	.002	.06
	5-11	.004	.08
	11-17	.004	.14
	17-23	.088	.54
	23-28	.068	20.00
	28-33	.008	1.04
	33-37	.008	1.88
	37-42	.012	1.00
	42-46	.010	.46
10040	0-4	.004	.10
	4-8	.010	.82
	8-12	.010	1.10
	15-19	.008	.86

REMARKS:

Pit Samples

Date: 5-15-89

Sample Identification		Bottle No	Roll No						
11,000	14-19	.018	1.04						
	17-26	.012	.81						
	26-30	.020	.80						
	30-41	.014	.54						
	41-51	.004	.12						
	51-61	.006	.22						
11,700	0-5	.006	.10						
	5-10	.008	.11						

REMARKS:

Date: 5-18-89

PIT SAMPLES (BOTTLE ROLL)

Sample Identification		Au	Ag
12032	0-7	.022	.38
	7-17	.030	.29
	17-22	.046	2.05
	22-30	.032	.60
	30-39	.022	.48
	39-49	.020	.28
	49-58	.028	.31
	58-67	.009	.25
12032	67-75	.018	.36
	75-83	.014	.22
	83-93	.022	.34
12100	0-9	.010	.18
	9-22	.009	.10
	22-34	.005	.06
	34-37	.006	.04
~~12,000~~ 12,200	0-10	.004	.04

REMARKS:

Avg (R1C2.. R11C2)

Laboratory Analysis

Moistkre Test

Date: 8-11-89

GRAMS

Sample Identification	Orig Wet wt	Dry wt	% H_2O					
Agglomerated Ore	1150.0	1042.8	9.32					
						% [illegible]		
	Orig wt	Done	Au	Ag		Au	Ag	
Dave Peterson #1	191.20	11.17						
#2	146.30	215.6	16.97			14.5 %		
#3	189.20	2.02						

REMARKS:

Date : 8-15-89
Muffle:

		Fire Assay		Bottle Roll			
Sample ID	Dore'	Au	Ag	Au	Ag	CN	pH
Grab 10570 N	Tr	Tr	Tr	Tr	.02		
Crusher Head 0930	6.53	.048					
"	6.39	.046					
N-4-1	6.80	.068					
"	6.71	.067					
N-4-2	1.38	.014					
"	1.38	.014					
E-1-1	.57	.007					
"	.51	.006					
E-1-2	1.66	.011					
"	1.60	.011					
E-20	.93	.013					
"	1.08	.013					

Date: 8-15-89 Pit Samples PAGE 3

Sample Identification	Fire Assay Dore'	Au	Ag		Bottle Roll Au	Ag		
Elev 975 9900N 10239E 77-81	.14	.005	.13					
81-91	TR	N.I	TR					
91-100	.08	.002	.08					
GRAB 10310 N	.30	.008	.29		.028	.26		
GRAB 10330	.24	.011	.23		.006	.20		
GRAB 10350 N	.08	.003	.08		.002	.06		
PRECIP 8-15-89	839.20	12.990	826.21					
" "	841.40	12.826	828.57					
" "	837.70	12.797	824.90					

REMARKS:

MUFFLE 2 (CONTINUED)

8394.33 12871

Ag Au

4 197/65 .064353 02/16

2252

Date: 8-16-89 Pit Samples PAGE 1

Sample Identification	Fire Assay Dore'	Au	Ag		Bottle Roll Au	Ag		
GRAB 10370N	.40	.035	.37		0.032	0.38		
Grab 10390	.21	.005	.20	orig wt	.003	.04		
Purity #1 8-15-89	[illegible]	[illegible]	[illegible]	250.0			% Au	% Ag
" "	245.0	3.896	241.104	251.0			1.552	96.057
" "	246.0	3.920	242.08	253.0			1.549	95.683
Purity #2 8-15-89	253.0	4.023	248.977	260.0			1.547	95.760
" "	305.0	4.856	300.144	316.0			1.537	96.821
" "	302.0	[illegible]	[illegible]	310.0				
10450 N Grab	.12	.006	.11		.004	.08		
10500 N Grab	.07	.004	.07		.002	.03		
10540 N Grab	.05	.002	.05		TR	.02		
SLAG 1 (Dave Peterson)	.223							
" 2 "	.222							
" 3 "	.237							
~~Dust Grab 10440N~~					~~.056~~	~~4.07~~		
" " 9900N					.004	.16		
Precip (50 grams) 8-17-89	6.76g	-13.52% metal						
GRAB 9925 N					.002	.06		
Dust Grab 10440N	7.05	.132	6.92		.056	4.07		
GRAB 9950 N					.005	.10		

REMARKS:

muffle 1

	Bottle Roll Au	Ag
Dave Powell S.P.	.026	.70

Laboratory Analysis

Date: 8-18-89

	Sample Identification	Insol wt Filter	Insol wt filter & Pulp	Insol % Insol		% Moisture	Troy oz/ton Au	Ag	
1	Precip 8-17-89	1.638 1.138	1.494			42.8			
2	"	1.611 1.111	1.466	28.67 %					
3	"	1.570 1.070	1.429						
	1	.500	.144 ~~.506~~	28.8					
	2	.500	.145	29.0					
	3	.500	.141	28.2					
	8-18-89 Plant Comp					Pb	CN	Au	Ag
11	B" Prec					10.5	1.4	.007	.86
	Barren					10.5	1.2	.003	.17
	Cell 1					10.5	1.4	.007	.47
	Cell 3					9.0	.5	.005	.23
11	C" Prec					10.5	1.4	.008	.82
	Barren					10.5	1.2	TR	.02
	Cell 1					10.5	1.4	.006	.39
	Cell 3					9.0	.4	.005	.25

REMARKS:

1.638	1.494	737	6.971	730.029
1.611	1.466	735	7.019	727.981
1.570	1.429	740	6.935	733.065

Date : 8-22-89
Muffle: —

Sample ID	Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag	CN	pH
Agglomerated Head ?		~~T~~	~~.26~~	TR	.26	.3	10.0
Hd Comp 8-21-89				.022	.92		
GRAB 10100N E. BENCH				.024	.11		
✓ 10050N ✓							
.45				~~0.14~~ ~~.24~~			
Cell 2					1.60	3.2	11.5
Cell 1				~~.006~~ .30 ~~.80~~ .044	.26	2.0	11.2
Cell 1 1330				.009	.48		
Cell 2 1330				.016	1.78		
PAUL COMP 8-22-89				.006	.44		
BARREN Comp 8-22-89				TRACE	.04		
C 1 Comp 8-22-89				.005	.28		
C 2 Comp 8-22-89				.013	1.36		

Date : 8-24-89
Muffle: —

Sample ID	Fire Assay Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag	Bottle Roll CN	Bottle Roll pH
C-1	7.82	.034	7.79				
C-2	25.40	.077	25.32				
C-3	173.62	.243	173.38				
C-4	19.80	.066	19.73				
C-5	1.51	.027	1.48				
C-6	.28	.005	.27				
C-7	.84	.008	.83				
C-8	.43	.002	.43				
C-9	2.70	.025	.67				
C-10	.25	.003	.25				
C-11	.51	.009	.50				
C-12	.90	.014	.89				
C-13	.75	.006	.74				
C-14	.57	.004	.57				
C-15	.48	.004	.41				
C-16	.92	.009	.91				
C-17	1.91	.028	1.88				
C-18	.52	.007	.50				
C-19	.72	.009	.71				
Crusher Head 8-24-89	1.57	.019	1.55				

Au .113 / 14 samples = .0095 Average

Ag 9.56 / 14 samples = .68 Average

Date :8-27-89
Muffle: 1

Sample ID	Fire Assay Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag	CN	pH
HEAD 8-26-89 0830	6.52	.063	6.46	.057	4.62		
" 8-26-89 "	6.49	.060	6.43	.055	4.58		
" " "	6.54	.065	6.48				
HEAD 8-26-89 0930	5.36	.052	5.31	.042	3.15		
" " "	5.41	.055	5.36	.039	3.02		
" " "	5.38	.054	5.33				

Laboratory Analysis

Date: 9-5-89

Sample Identification	Dois	Clw	Aq					
29 T-5-89 (GB-174	.03	T.W	.03					
30 174-182	.07	TW	.07					
182-190	.08	TW	.08					
32 190-198	.04	TW	.04					
33 198-200	.09	TW	.09					
34 Ralph Gonzales 4 Layers	1.94	0.134						

REMARKS:

PIT ASSAY / GRAB SAMPLES

	Date: 9-5-89 Muffle #: 2	Fire Assay			Bottle Roll	
	Sample ID	Dore'	Au	Ag	Au	Ag
1	GRAB 10060 N	1.26	.082	1.18	.034	.42
2	Crushed Hd 1100 9-5-89	1.63	.017	1.61	.010	.84
	↙ ↙	1.65	.017	1.63		
4	Crushed Hd 1500 9-5-89	2.31	.028	2.28	.016	1.02
5	↙ ↙	2.37	.029	2.34		
	9-5-89 Fm 11763N 10981E 0-9	TN	TN	TN		
7	9-5-89 4610 Elev. 9-20	TN	TN	TN		
8	20-25	TN	TN	TN		
9	25-33	TN	TN	TN		
10	33-39	.02	TN	.02		
11	39-46	.05	TN	.05		
12	46-54	.04	TN	.04		
	54-57	.04	TN	.04		
14	57-67	.03	TN	.03		
15	67-76	.05	TN	.05		
16	76-85	.02	TN	.02		
17	85-97	.02	TN	.02		
18	97-100	.20	TN	.20		
19	100-106	.26	TN	.26		
	106-114	.07	TN	.07		
21	114-122	.02	TN	.02		
22	122-132	TN	TN	TN		
	132-139	.05	TN	.05		
24	139-144	.32	TN	.32		
25	144-151	.03	TN	.03		
	151-158	.47	TN	.47		
27	158-163	.03	TN	.03		
28	163-168	.02	TN	.02		

GAR4 .32
10Jun .57

PIT ASSAY / GRAB SAMPLES

	Date: 9-6-89 Muffle #: 1		Fire Assay		Bottle Roll	
	Sample ID	Dore'	Au	Ag	Au	Ag
1	Crusher Hd 9-5-89 1400-1600	1.08	.010	1.07	.017	.76
2	✓	1.17	.012	1.16	—	—
	Crusher Hd 9-5-89 1600-1800	1.88	.019	1.86	.020	1.12
4	✓	1.90	.020	1.88	—	—
5	Crusher Hd 9-6-89 0200	2.27	.022	2.25	.022	1.92
	✓	2.34	.024	2.32	—	—
7	Grab 10100N 9-6-89	—	—	—	.008	.48
8						
9						
10						
11	9-6-89 EL4600 10803N 10716E 0.4	.02	TR	.02	TR	.02
12	4-9	.02	TR	.02	TR	.02
	9-15	.02	TR	.02	TR	.02
14	15-20	.05	TR	.05	TR	.04
15	20-25	.03	TR	.03	TR	.03
16	25-31	.04	TR	.04	TR	.04
17	31-38	.09	.004	.09	.002	.08
18	38-45	.04	TR	.04	TR	.04
19	45-51	.02	TR	.02	TR	.02
	51-58	.04	TR	.04	TR	.03
21	58-64	.04	.002	.04	.002	.04
22	64-69	.06	.003	.06	.002	.05
	9-6-89 10115N 53-58 Grab H ~~803~~ (GOBZILL)	2.57	.048	2.52	.042	2.43
24						
25						
27						
28						

PIT ASSAY / GRAB SAMPLES

Date: 09/07/89 Muffle #: 1		Fire Assay			Bottle Roll	
Sample ID		Dore'	Au	Ag	Au	Ag
11828 N Elev 4599 10725E	0-5	.04	TR	.04		
	5-9	.02	TR	.02		
	9-16	.02	TR	.02		
	16-22	.05	TR	.05		
	22-28	.04	TR	.04		
	28-33	.04	TR	.04		
	35-39	.04	TR	.04		
	39-42	.02	TR	.02		
	42-49	.02	TR	.02		
	49-58	TR	N.I	TR		
GRAB 10125		1.02	.023	1.00	.018	.26
11854N El-4600 10731E	0-8	TR	N.I	TR	[illegible]	[illegible]
	8-12	.02	TR	.02		
	12-16	.02	TR	.02		
	16-20	.03	TR	.03		
	20-27	.02	TR	.02		
	27-31	TR	N.I	TR		
	31-38	TR	N.I	TR		
	38-45	TR	N.I	TR		
	45-51	.02	TR	.02		
11882 N El-4601 10739E	0-9	.05	TR	.05		
	9-17	.02	TR	.02		
	17-24	.02	TR	.02		
	24-31	TR	N.I	TR		
	31-38	TR	N.I	TR		
	38-51	TR	N.I	TR		
Crusher Head	09/06/89 0700-1200	1.43	.036	1.39	.024	.72
"	"	1.27	.031	1.24		

PIT ASSAY / GRAB SAMPLES

Date: 09/07/89 Muffle #: 2

	Sample ID	Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag
X 1	GRAB 10290N EAST DIKE				.020	.28
2	9-7-89 EL 4653 11654N 10423E 0-7				TR	.02
3	7-12				TR	.01
4	12-22				TR	.02
5	22-34				TR	.02
6	34-41				TR	.01
7	41-49				TR	.02
8	49-53				TR	.02
9	54-61				TR	.01
10	61-75				TR	.02
11	75-83				TR	.01
12	83-95				TR	.01
13	95-103				TR	.02
1 14	103-109				TR	.01
2 15	109-119				TR	.01
3 16	119-127				TR	.04
4 17	127-131				TR	.02
5 18	131-143				TR	.02
6 19	143-149				TR	.04
7 20	149-155				TR	.03
8 21	155-169				TR	.03
9 22	9-7-89 13110N Floor West				TR	.02
10 23	9-7-89 13080N Fill				TR	.05
11 24	9-7-89 13110N Floor East				TR	.08
12 25	9-7-89 13080N Floor Middle				TR	.07
26						
27						
28						

PIT ASSAY / GRAB SAMPLES

Date: 9-7-89 Muffle #: 3		Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Ag	Au	Ag
1 9-7-89 GRAB 10150N	.22	.003	.22	.003	.20
2 13080N Floor East	.08	TR	.07	TR	.07
3 13080N Floor West	.04	TR	.04	TR	.04
4 13110N Floor Middle	.04	TR	.04	TR	.02
5 9-7-89 W.of Pit Fill GRAB 10390N	.09	TR	.09	TR	.06
6 9-7-89 GRAB DJ POT	.11	TR	.11	TR	.08
7 Crusher Hd 9-6-89 0700-0900				.008	.99
8 ↙					
9 Crusher Hd ↙ 0900-1100				.006	.47
10 ↙					
11 Crusher Hd ↙ 1100-1800				.009	.92
12 ↙					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

PIT ASSAY / GRAB SAMPLES

Date: 9-8-89 Muffle #: 1

	Sample ID	Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag
1	Crusher Hd 9-6-89 0700-0900	1.64	.020		—	—
2	✓	1.67	.020			
3	Crusher Hd 9-6-89 0900-1100	.82	.014		—	—
4	✓	.81	.014			
5	Crusher Hd 9-6-89 1100-1800	1.54	.021		—	—
6	✓	1.59	.022			
7	9-7-89 WORKING ORE FACE GRAB 10175N	~~.88~~	—	—	.008	.46
8	9-8-89 WORKING FACE GRAB 10200N ±	4.35	.031		① .024	1.36
9	9-8-89 WORKING FACE GRAB 10225N ±	.77	.008		② .008	.28
10	Crusher Hd 9-7-89 ~~0700-0900~~	1.12	.012		③ .010	.89
11	✓	1.14	.012			
12	Crusher Hd 9-7-89 0900-1100	1.88	.018		④ .014	.68
13	✓	2.02	.021			
14	Crusher Hd 9-7-89 1100-1300	1.15	.015		⑤ .012	.64
15	✓	2.21	.027		~~⑤~~	
16	Crusher Hd 9-7-89 1300-1500	1.48	.020		⑥ .020	.93
17	✓	1.45	.020			
18	Crusher Hd 9-7-89 1500-1700	1.14	.013		~~⑥~~ .012	.58
19	✓	1.14	.014			
20	Crusher Hd 9-7-89 1700-1800	1.13	.014		⑧ .012	68
21	✓	1.16	.014			
22	9-8-89 WORK FACE GRAB 10250N	.69	.004		① .604	.30
23	9-8-89 WEST A BENCH GRAB 9-8-89 9925N	.64	.002		② TR	.16
24	9-8-89 GRAB 9960N W BENCH	.19	.014		③ .012	.19
25	GRAB 10000N W BENCH	.04	TR	.04	④ TR	.02
26						
27						
28						

PIT ASSAY / GRAB SAMPLES

			Fire Assay		Bottle Roll	
Date: 9-8-89	Muffle #: 2					
	Sample ID	Dore'	Au	Ag	Au	Ag
5 1	Crusher Hd 9-8-89 0700-0900	.32	.005		(5) .004	.11
6 2	✓	.29	.005			~~.16~~
7 3	Crusher Hd 9-8-89 0900-1100	~~X~~	~~[illegible]~~		(6) .004	~~.32~~ .16
8 4	✓	.35	.006			
9 5	GRAB 103000 GOB+FILL Pad II	.50	.006		(7) .006	.32
6						
7						
8						
9						
10						
11						
12						
13						
14						
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PIT ASSAY / GRAB SAMPLES

	Date: 9-8-89 Muffle #:	Fire Assay			Bottle Roll	
	Sample ID	Dore'	Au	Ag	Au	Ag
1	98-89 Crusher Hd 1100-1300	.83	.018	.81	.004	.33
2	"	.79	.018	.77		
	9-8-89 GRAB 10325N				TR	.02
4	9-8-89 E. WALL GRAB 10325N FACE				TR	.03
5	9-8-89 NORTH GRAB 9920N W. WALL				TR	.01
6	SOUTH GRAB 9920N W. WALL				TR	.01
7	~~Crusher Hd 9-8-89~~					
8	9-8-89 Crusher Hd 1300-1500	.89	.023	.87	① .005	.50
9	" "	.84	.016	.82		
10	9-8-89 Crusher Hd 1500-1700	.50	.010	.49	② .004	.20
11	" "	.51	.010	.50		
12	9-8-89 Crusher Hd 1700-1900	.55	.012	.54	③ .003	.24
	"	.58	.012	.57		
14	9-9-89 Working Face 10335N Ore + Fill	.62	.014	.61	④ .005	.62
15	9-9-89 EL 4700 GRAB 10000N 10370E	.27	.007	.26	⑤ TR	.06
16	9-9-89 10050N EL 4700 GRAB ~~10050~~ 10370E	.26	.005	.26	⑥ TR	.10
17	Crusher 9-9-89 0700-0900	1.87	.024	1.85	⑦ .006	.28
18	"	1.61	.018	1.59		
19	Crusher 9-9-89 0900-1100	1.82	.021	1.80	⑧ .009	1.22
	"	1.83	.022	1.81		
21						
22						
24						
25						
27						
28						

PIT ASSAY / GRAB SAMPLES

	Date: 9-10-89 Muffle #:		Fire Assay		Bottle Roll	
	Sample ID	Dore'	Au	Ag	Au	Ag
1	T1-2 9-9-89				.002	.12
2	T2-2 "				.001	.08
3	T3-2 "				.003	.16
4	T4-2 "				.002	.13
5	T5-2 "				.004	.16
6	T6-2 "				.002	.08
7	T7-2 "				.001	.06
8	T8-2 "				.001	.10
9	T9-2 "				.001	.12
10	T10-2 "				.003	.14
11	T11-2 "				.006	.30
12	T12-2 "				.003	.10
13	T14-2 "				.007	.34
14	T16-2 "				.005	.20
15	T20-2 "				.003	.09
16	T22-2 "				.003	.12
17	T24-2 "				.003	.11
18	T26-2 "				.003	.11
19	T27-2 "				.002	.08
20						
21						
22						
23						
24						
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26						
27						
28						

PIT ASSAY / GRAB SAMPLES

Date: 9-12-89 Muffle #: 1

	Sample ID	Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag
1	Grab E. Bench 10110	.51	.006	.50	.004	.16
2	Grab E Bench 10150	.28	.003	.28	.003	.03
3	Grab 10400 N	1.03	.014	1.02	.012	.50
4	Grab 10420 N	1.01	.041	0.97	.050	.31
5	TP 1-3	.31	.005	.31	.004	.11
6	TP 2-3	.15	.002	.15	TN	.04
7	TP 3-3	.85	.010	.84	.008	.26
8	Crusher Head 9-8-89 1	1.61	.030	1.58	.026	.74
9	" " 9-8-89 2	2.06	.023	2.04	.021	1.46
10	" " 9-8-89 3	.56	.015	.54	.012	.38
11	" " 9-8-89 4	.48	.009	.47	.008	.36
12	" " 9-8-89 5	.51	.005	.51	.002	.14
13	" " 9-8-89 6	1.04	.026	1.02	.024	.48
14	" " 9-10-89 7	.31	.005	.31	.004	.13
15	" " 9-10-89 8	.63	.012	.62	.010	.36
16	" " 9-10-89 9	.53	.014	.52	.012	.38
17	" " 9-11-89 10	.81	.009	.80	.009	.78
18	Grab 10100N 9-11-89	19.78	.033	19.75	.032	7.20
19	10125N EI-4678 10317E 0-7	2.31	.018	2.29		
20	7-14	.53	.009	.52		
21	14-21	1.62	.017	1.60		
22	21-29	2.01	.022	1.99		
23	29-37	.72	.008	.71		
24	37-44	2.74	.017	2.72		
25	44-51	2.51	.021	2.49		
26	51-55	.27	.003	.27		
27						
28						

PIT ASSAY / GRAB SAMPLES

Date: 9-12-89 Muffle #: 2	Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Au	Ag
1 10150 N 10326 E El. 4675 0-10	.22	.006	.006	.14
2 10-16	.18	.005	.004	.08
3 16-21	.17	.001	.002	.10
4 21-29	.09	Tr	.TR	.11
5 29-38	.73	.004	.004	.60 ~~.06~~
6 38-43	.15	Tr	TR	.06
7 43-48	.11	Tr	TR	.06
8 48-56	.21	.004	.003	.12
9 Grab 10150 N working face 9-12-89	.84	.004	.002	.29
10 Crusher Head 9-11-89 AM	.50	.004	.50	
11 " "	.49	.004	.49	
12 Crusherhead 9-11-89 PM	1.04	.010	1.03	
13 " "	1.01	.010	1.00	
14 Crusher Head 9-12-89 0600-0800	.61	.005	.61	
15 " "	.60	.005	.60	
16 9-12-89 10225 N Grab - Mid-Grade Pile	.71	.010	.70	.008 .35
17				
18				
19				
20				
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22				
23				
24				
25				
26				
27				
28				

PIT ASSAY / GRAB SAMPLES

Date: 9-13-89 Muffle #: 1		Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Ag	Au	Ag
1 9-12-89 Crusher Hd 0800-1000	.65	.007	.64	.005	.52
2 ↙	.68	.007	.67		
3 9-12-89 Crusher H 1000-1200	.35	.005	.35	.004	.20
4 ↙	.41	.005	.41		
5 ~~Feeder~~ GRAB 10225N MID-ORE PILE	.93	.010	.~~93~~ 92	.008	.35
6 9-12-89 Crusher 1300-1500	.68 ~~.38~~	.011	.67	① .018 ~~.38~~	.38
7 ↙	.68 ~~.38~~	.011	.67		
8 9-12-89 Crusher 1500-1600	.57	.007	.56	② .014 ~~.36~~	.36
9 ↙	.57	.007	.56		
10 9-12-89 Crusher 1600-1800	1.12	.012	1.11	③ .012 ~~.53~~	.53
11 ↙	1.14	.012	1.13		
12 9-13-89 Crusher 0600-0800	.69	.011	.68	④ .008 ~~.48~~	.48
13 ↙	.71	.011	.70		
14 9-13-89 10150N Working GRAB ~~10350N~~ FACE				.005 ~~.38~~	.38
15					
16					
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PIT ASSAY / GRAB SAMPLES

Date: 9-13-89 Muffle #: 2		Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Ag	Au	Ag
1 9-13-89 10150N Working Grab ~~10250~~ Face	.83	.012	.82	—	—
2 9-13-89 EL 4563 13129N 1198E 0-10	.08	TR	.08		
10-22	.04	TR	.04		
4 22-29	.02	TR	.02		
5 29-37	.02	TR	.02		
37-48	.02	TR	.02		
7 48-60	.03	TR	.03		
8 60-74	.05	TR	.05		
9 74-85	.05	TR	.05		
10 85-100	.07	TR	.07		
11 100-117	.08	TR	.08		
12 117-132	.03	TR	.03		
132-144	.02	TR	.02		
14 144-154	.31	.005	.31		
15 154-166	.12	.002	.12		
16 166-180	.04	TR	.04		
17 180-189	.07	TR	.07		
18 189-200	.10	.002	.10		
19 200-207	.20	.004	.20		
207-213	.24	.005	.24		
21 213-226	.16	.002	.16		
22 226-242	.12	.002	.12		
242-258	.07	TR	.07		
24					
25					
27					
28					

PIT ASSAY / GRAB SAMPLES

	Date: 09-14-89 Muffle #: 1	Fire Assay			Bottle Roll	
	Sample ID	Dore'	Au	Ag	Au	Ag
1	Crusher Head 9-13-89 0800-1000	.83	.009			
2	✓	.99	.010			
3	Crusher Head 9-13-89 1000-1200	1.30	.015			
4	✓	.92	.011			
5	Crusher Head 9-13-89 1200-1400	.73	.008			
6	✓	.72	.008			
7	10979N E1-4615 10611E 9-13-89 0-9	1.01	.006	1.00		
8	9-13	.93	.008	.92		
9	13-16	1.53	.022	1.51		
10	16-21	.80	.007	.79		
11	21-26	.57	.004	.57		
12	26-30	.56	.005	.56		
13	30-39	10.76	.042	10.72		
14	39-45	3.30	.022	3.28		
15	45-53	2.01	.017	1.99		
16	53-59	1.29	.010	1.28		
17	59-68	.76	.006	.75		
18	68-76	.21	Tr	.21		
19	76-84	1.22	.009	1.22		
20	84-93	.30	.002	.30		
21	93-98	.16	Tr	.16		
22	98-106	TR	N.I	TR		
23	106-117	TR	N.I	TR		
24	117-133	.02	N.I	.02		
25	133-145	.05	N.I	.05		
26	145-155	TR	N.I	TR		
27	155-171	TR	N.I	TR		
28	171-179	.31	.002	.31		
29	188-197	.02	N.I	.02		
30	197-211	TR	N.I	TR		

PIT ASSAY / GRAB SAMPLES

Date: 9-14-89 Muffle #: 2

	Sample ID	Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag
1	Middle 9-13-89 PAD 3 Tails	.47	.003	.47	Tr	.02
2	North 9-13-89 PAD 3 Tails	.49	.003	.49	Tr	.02
3	South 9-13-89 PAD 3 Tails	.33	Tr	.33	Tr	.03
4	GRAB 9-14-89 10220N	1.79	.009	1.78	.004	.48
5	Crusher Head 9-13-89 1400-1600	1.13	.015	1.12	.004	.48
6	" " 9-13-89 1600-1800	1.18	.012	1.17	.004	.56
7	" " 9-14-89 0600-0800	1.05	.009	1.04	.006	.64
8	" " 9-14-89 0800-0900	1.09	.014		.012	.96
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PIT ASSAY / GRAB SAMPLES

Date: 9-14-89 Muffle #: 3		Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Ag	Au	Ag
1 9-14-89 EL 4611 11680 N 10599E 0-14	.31	.003	.31		
2 1421	.27	.003	.27		
3 21-27	.05	Tr	.05		
4 27-39	.04	Tr	.04		
5 39-47	.04	Tr	.04		
6 47-53	.09	Tr	.09		
7 53-61	.07	Tr	.07		
8 61-69	.11	.002	.11		
9 69-84	.04	Tr	.04		
10 84-91	Tr	Tr	Tr		
11 91-96	Tr	Tr	Tr		
12 96-103	.04	Tr	.04		
13 103-112	.04	Tr	.04		
14 112-119	.02	Tr	.02		
15 119-125	Tr	Tr	Tr		
16 125-131	Tr	Tr	Tr		
17 131-137	.01	Tr	.01		
18 137-147	.01	Tr	.01		
19 147-153	.03	Tr	.03		
20 153-160	.02	Tr	.02		
21 160-165	Tr	Tr	Tr		
22 165-171	Tr	Tr	Tr		
23 9-14-89 Crusher 1032-1230	.59	.007	.58	.006	.18
24 ✓ ✓	.58	.007	.57		
25					
26					
27					
28					

PIT ASSAY / GRAB SAMPLES

Date: 9-15-89 Muffle #: 1		Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Ag	Au	Ag
1 Grab 9-14-89 1045D AM				TR	.02
2 1 Crusher 9-14-89 1230-1430	.58	.006	.57	.004	.24
~ ~	.57	.006	.56		
4 3 Crusher 9-14-89 1600 —	.63	.008	.62	① .005	.25
5 4 ~	.61	.008	.60		
6 5 Crusher 9-14-89 2200 —	.51	.005	.51	② .004	.28
7 6 ~	.48	.005	.48		
8 7 Crusher 9-15-89 0400 —	1.14	.011	1.13	③ .005	.41
9 8 ~	1.16	.011	1.15		
10 9 9-15-89 EL 4712 7800N 10281E 0-21	Tr	Nil	Tr		
11 10 21-35					
12 11 35-42					
13 12 42-50					
14 13 50-57					
15 14 57-65					
16 15 65-80					
17 16 80-90					
18 17 90-99					
19 18 99-111					
20 111-127					
21 20 127-139					
22					
23					
24					
25					
26					
27					
28					

CH = Crushed Head

PIT ASSAY / GRAB SAMPLES

Date: 9-16-89 Muffle #:

	Sample ID	Dore'	Fire Assay Au	Fire Assay Ag	Bottle Roll Au	Bottle Roll Ag
1	CH 9-15-89 0700	.41	.008	.40	.008	.32
2	✓	.43	.010	.42		
3	CH 9-15 1000	.64	.015	.63	.014	.64
4	✓	.67	.015	.65		
5	CH 9-15 1400-1600	.52	.006	.51	.006	.47
6	✓	.51	.006	.50		
7	CH 9-15 1600-1800	.75	.008	.74	.008	.72
8	✓	.73	.008	.72		
9	CH 9-15 1800-2000	.54	.010	.53	.008	.54
10	✓	.51	.010	.50		
11	CH 9-15 2000-2200	.66	.006	.65	.005	.63
12	✓	.64	.005	.63		
13	CH 9-15 2200-2400	.33	.006	.32	.006	.28
14	✓	.31	.006	.30		
15	CH 9-16-89 2400-0200	.39	.005	.38	.005	.36
16	✓	.39	.006	.38		
17	CH 9-16 0200-0400	.28	.004	.28	.004	.26
18	✓	.26	.005	.26		
19	CH 9-16 0400-0600	.49	.006	.48	.006	.46
20	✓	.49	.006	.48		
21	9-14-89 10000N GRAB Working Face	.08	TR	.08	TR	.08
22	9-16-89 GRAB Mid Grade 10025N	.05	TR	.05	TR	.03
23						
24						
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PIT ASSAY / GRAB SAMPLES

Date: 9-18-89 Muffle #: 1		Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Ag	Au	Ag
1 CH 9-17-89 1000-1200	.62	.007			
2 " " 1200-1400	.94	.012			
3 " " 1400-1600	.37	.003			
4 " " 1600-1800	.44	.003			
5 " " 1800-2000	.61	.005			
6 " " 2000-2400	.47	.005			
7 " 9-18-89 0100-0300	.78	.006			
8 " " 0300-0500	.64	.007			
9 " " 0500-0700	.62	.005			
10 " " 0700-0900	.46	.003			
11					
12					
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PIT ASSAY / GRAB SAMPLES

	Date:	Muffle #:	Fire Assay		Bottle Roll	
	Sample ID	Dore'	Au	Ag	Au	Ag
1	9-18-89 EL 4605 11139N 10637E 0-9	2.79	.015	2.77		
2	9-15	.95	.004	.95		
3	15-23	1.38	.009	1.37		
4	23-28	6.85	.170	6.68		
5	28-34	1.01	.010	1.00		
6	Crusher 9-18-89 AM	.77	.011	.76	.008	.56
7	✓	.70	.011	.69		
8	Crusher 9-18-89 PM	.26	.013	.25	.004	.14
9	✓	.26	.013	.25		
10	9-19-89 LOW GRADE GRAB 10440N				TR	.02
11	GRAB 10440N MID GRADE				TR	.08
12						
13						
14						
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PIT ASSAY / GRAB SAMPLES

Date: 9-19-89 Muffle #: 1		Fire Assay		Bottle Roll	
Sample ID	Dore'	Au	Ag	Au	Ag
1 Pad / Tails North 9-17-89	.41	.004	.41		
2 " Middle "	.30	.003	.30		
3 " South "	.60	.004	.60		
4 1100 SN 61-4607 10629E 0-4	.29	.003	.29		
5 4-8	.58	.007	.57		
6 8-13	2.43	.039	2.39		
7 13-18	9.87	.158	9.71		
8 18-24	4.64	.064	4.04		
9 24-32	1.05	.022	1.03		
10 32-39	.34	.011	.33		
11 39-48	.36	.079	.28		
12 48-55	.14	.052	.09		
13 55-64	.45	.006	.44		
14 64-70	TR	N.I	TR		
15					
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Barrel Tests

BARREL TESTS

Sample ID: Head Ore (Test 1)

Head Assay		Tails Assay	
HA Au:	0.018	TA Au:	
HA Ag:	6.05	TA Ag:	

Using Lime : None
NaCN : 01 lbs./ton
Cement: 15 lbs./ton

24 Hours		48 Hours		72 Hours		96 Hours	
Au:	0.008	Au:	0.009	Au:	0.032	Au:	0.042
Ag:	1.80	Ag:	1.93	Ag:	5.32	Ag:	5.80
pH:	10.0	pH:	9.9	pH:	9.9	pH:	9.7
CN:	0.2	CN:	0.2	CN:	0.2	CN:	0.2

Date Started: 07/31/89 Date Stopped: 08/04/89
Time Started: 14:00 Time Stopped: 14:00

% Recovery	
PR Au:	100.00
PR Ag:	100.00

Comments: Coordinate 1: 10582 N

BARREL TESTS

Sample ID: Head Ore (Test 2)

Head Assay		Tails Assay	
HA Au:	0.020	TA Au:	
HA Ag:	6.36	TA Ag:	

Using Lime : 05 lbs./ton
NaCN : 01 lbs./ton
Cement: 10 lbs./ton

24 Hours		48 Hours		72 Hours		96 Hours	
Au:	0.026	Au:	0.028	Au:	0.040	Au:	0.042
Ag:	2.83	Ag:	3.38	Ag:	6.28	Ag:	7.05
pH:	10.6	pH:	10.4	pH:	10.1	pH:	10.1
CN:	0.8	CN:	0.7	CN:	0.5	CN:	0.5

Date Started: 07/31/89 Date Stopped: 08/04/89
Time Started: 14:00 Time Stopped: 14:00

% Recovery
PR Au: 100.00
PR Ag: 100.00

Comments: Coordinate 1: 10582 N

BARREL TESTS

Sample ID: Head Ore (Test 3)

Head Assay		Tails Assay	
HA Au:	0.018	TA Au:	
HA Ag:	6.07	TA Ag:	

Using Lime : 10 lbs./ton
NaCN : 01 lbs./ton
Cement: 05 lbs./ton

24 Hours		48 Hours		72 Hours		96 Hours	
Au:	0.009	Au:	0.010	Au:	0.035	Au:	0.032
Ag:	1.84	Ag:	2.15	Ag:	5.64	Ag:	5.82
pH:	10.9	pH:	10.7	pH:	10.3	pH:	10.2
CN:	0.8	CN:	0.6	CN:	0.4	CN:	0.4

Date Started: 07/31/89 Date Stopped: 08/04/89
Time Started: 14:00 Time Stopped: 14:00

% Recovery	
PR Au:	100.00
PR Ag:	100.00

Comments: Coordinate 1: 10582 N

BARREL TESTS

Sample ID: Head Ore (Test 4)

Head Assay		Tails Assay	
HA Au:	0.018	TA Au:	
HA Ag:	6.16	TA Ag:	

Using Lime : 08 lbs./ton
NaCN : 01 lbs./ton
Cement: None

24 Hours		48 Hours		72 Hours		96 Hours	
Au:	0.012	Au:	0.013	Au:	0.028	Au:	0.030
Ag:	1.98	Ag:	2.60	Ag:	5.60	Ag:	5.74
pH:	10.8	pH:	10.5	pH:	10.2	pH:	10.2
CN:	0.7	CN:	0.6	CN:	0.3	CN:	0.2

Date Started: 07/31/89 Date Stopped: 08/04/89
Time Started: 14:00 Time Stopped: 14:00

% Recovery
PR Au: 100.00
PR Ag: 100.00

Comments: Coordinate 1: 10582 N

Laboratory Analysis

Date: 08-03-89

Barrel Tests 72 HRS

Sample Identification	Au	Ag	PH	CN				
1	.037	5.32	9.9	.2				
2	.040	6.28	10.1	.5				
3	.035	5.64	10.3	.4				
4	.028	5.60	10.2	.3				
1	.042	5.80	9.7	.2				
2	.042	7.05	10.1	.5				
3	.032	5.82	10.2	.4				
4	.030	5.74	10.2	.2				

REMARKS:

Laboratory Analysis

Date: _____

BARREL TESTS

Sample Identification	Au	Ag		PH	Free CN			
08-01-89 (HEAD ORE)								
#1 24 HRS	.008	1.80		10.0	0.2			
#2 "	.026	2.83		10.6	0.8			
#3 "	.009	1.84		10.9	0.8			
#4 "	.012	1.98		10.8	0.7			
08-02-89 (Head Ore)								
#1 48 HRS	.009	1.93		9.9	0.2			
#2 "	.028	3.38		10.4	0.7			
#3 "	.010	2.15		10.7	0.6			
#4 "	.013	2.60		10.5	0.6			

REMARKS:

8-28-89 10:00 AM

Barrel Tests

	Au	Ag
Mid Grade 1)	.024	2.64
2)	.016	2.09
Tails 3)	.007	.37
Tails 4)	.006	.48

Spent Ore Study

September 29, 1988

Report

SPENT-ORE PILE STUDY

Prepared for:

PBR MINERALS INC.
TOMBSTONE, ARIZONA

GEOCHEMICAL ENGINEERING
INCORPORATED

Summary and Conclusions

A ten-hole drilling program was conducted on PBR Minerals' spent-ore pile, located at Tombstone, Arizona. Fire assays and rolling bottle tests were conducted on the recovered samples in order to determine the amount of gold and silver present and gain some insight into its leachability. There are approximately 1,241,480 tons of spent ore available for releaching. It is anticipated that releaching of the spent-ore pile would yield an total of 7,201.81 ounces of gold and 300,262 ounces of silver. The gross value of this amount of gold and silver at a market value of $425.00/oz gold and $6.50/oz silver is $5,012,474. This is an "in-place" value and does not take into consideration any costs involved in ore preparation, handling, leaching or metal recovery.

The figures in this report are estimates only and should not be construed as being exact quantities. The estimated amounts of gold and silver may or may not be actually recovered, and if recovered, the revenues therefrom could be more or less than the estimated amounts. Moreover estimates of production may increase or decrease as a result of leaching procedures and the method that the ore material is prepared and handled before and during these operations.

Geochemical Engineering, Inc. certifies that neither it nor its employees have any interest past, present or contemplated in the appraised properties and that neither the employment to make the appraisal nor the compensation is contingent on the value of the properties.

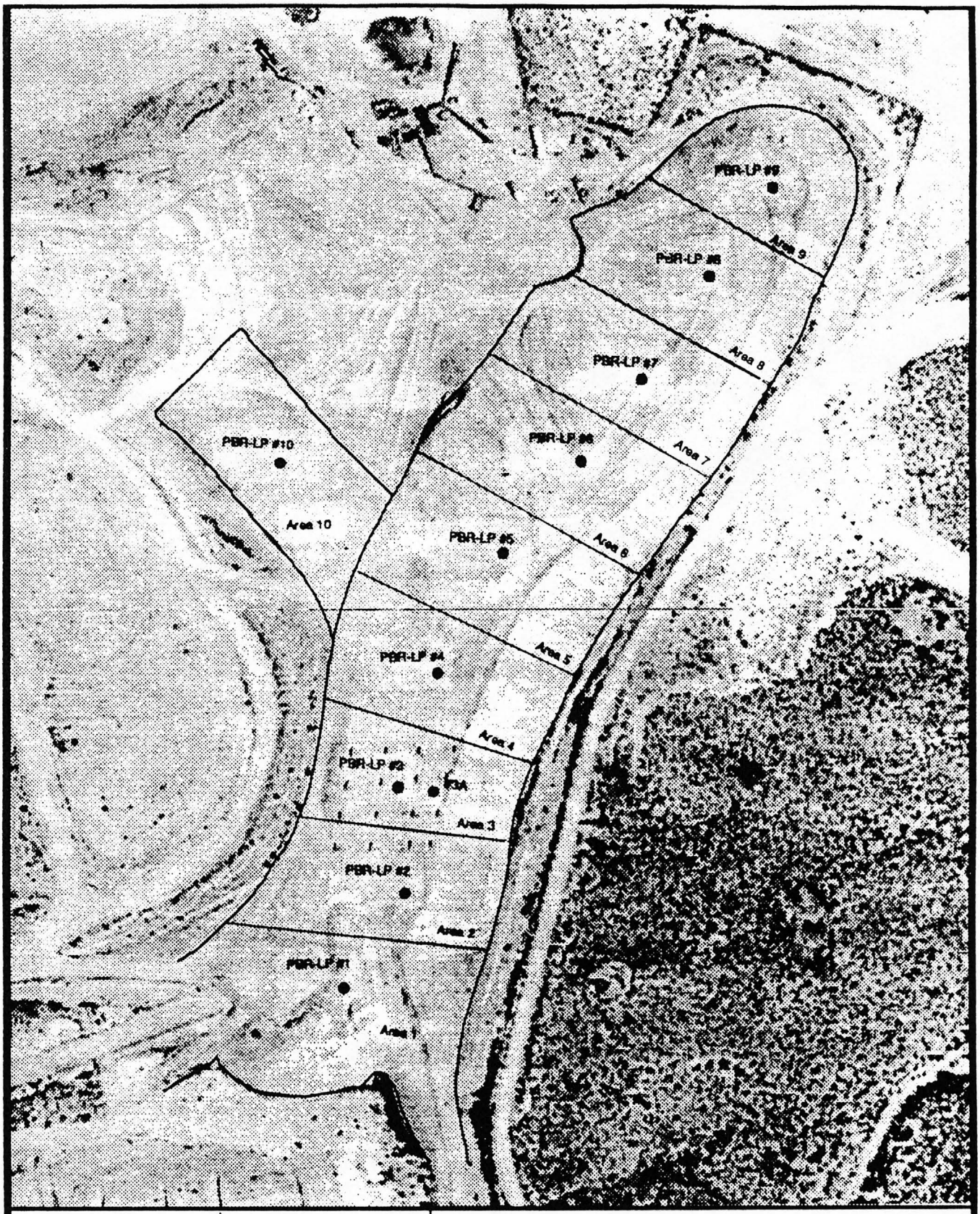
GEOCHEMICAL ENGINEERING
INCORPORATED

Introduction

PBR Minerals, Inc., of Tombstone, Arizona, requested Geochemical Engineering, Inc. to conduct a drilling and sampling program on a spent-ore pile (Figure 1), located on their Tombstone, Arizona property, in order to determine the residual amounts of gold and silver that remain after the prior heap leaching operation. This information will be used to estimate the potentially recoverable amounts of those precious metals that may be recovered should the agglomerate be releached.

History

The Tombstone, Arizona area has been an active mining area since the discovery of silver in the area in 1877. The activity and the period during which most of the ore was produced was from 1877 to 1911. Between 1911 and 1979 periods of inactivity were interspersed with some intermittent development when gold prices increased in 1932 and during World War II. In 1979 Tombstone Exploration, Inc., began an extensive development program followed by an open pit mining and cyanide heap-leach operation. During this period approximately 2 million tons of ore were mined and treated with a cyanide leach process. The leaching process for each batch of



PROJECT: 8888	REVISIONS
DATE: 8/14/88	
GEOCHEMICAL ENGINEERING INCORPORATED Lakewood, Colorado	

Figure 1

PBR Minerals Spent-Ore Pile

ore spanned a period of 5 days, after which the spent ore was removed from the leach pad and placed on the spent-ore pile. The leached ore was not washed or neutralized before being placed on the spent-ore pile.

PBR Minerals acquired the leases on the property in November of 1987 and are presently in the process of permitting the property in order to continue mining and leaching operations.

Drilling and Sampling

A CME 75 continuous flight, hollow-stem auger drill rig was used to obtain samples from the spent-ore pile. Samples were recovered using a continuous sampler. Ten holes were drilled along the crest of the spent-ore pile (Figure 1). The loosely-compacted nature of the material to be recovered posed a slight problem in achieving complete sample recovery; however, optimum sample recovery was gained by coring 2.5 foot intervals down to a depth of 30 feet, followed by 5 foot intervals to the maximum depth. In order to maintain uniformity the 2.5 foot samples in the upper portion of the hole were combined into 5 foot samples. A sample description of each drill hole is presented in appendix 1.

The cores were split in the field, one half was bagged and is stored at the PBR Minerals facility for further assaying and testing that may be required. The second one-half was dried and quartered. Each of the quarter splits was used in the following manner:

- one quarter was sent to Jacobs Laboratories for fire assay to determine gold and silver values .

- the second quarter splits were used by PBR Minerals laboratory to run verification fire assays for gold and silver.

- the third and fourth splits were used to conduct rolling bottle tests to determine leachability of the gold and silver.

Skyline Labs conducted "Carlin" leachability tests on a portion of the some of the remaining one-quarter split.

Ten holes were drilled along the spent-ore pile (Figure 1). An eleventh hole, PBR-LP#3A, was augured down to a depth of 48' where coring began and was continued to 66.5' where the clay liner was encountered. This hole was drilled in order to penetrate an area along the edge of the spent-ore pile that lies below the maximum depth of 48 feet that was penetrated by the drill at hole PBR-LP#3. All the holes were spaced at intervals of approximately 150 feet along the crest of the spent-ore pile.

Rock Density

Five samples of the agglomerate were collected from various locations along the spent-ore pile. These samples were sent to Western Technologies laboratory in Tucson for density analysis. The results indicated a dry density ranging from 119.2 to 130.9 pound per cubic foot. An average of these results was taken and 123 pounds per cubic foot used as the material density in all the

calculations. The results of Western Technologies tests are included in appendix 2.

Fire Assays

Jacobs Assay Office located in Tucson, Arizona fire assayed each sample for both gold and silver. PBR Minerals' analytical labs, located on the property, also ran fire assays of these samples for gold and silver . Assaying by each laboratory was conducted by registered assayers and followed standard recognized procedures. Results of the fire assays are presented in appendix 3.

Leachability

Skyline Labs conducted "Carlin" leachability tests for Au and Ag. Samples were ground to -100 mesh, added to a hot NaCN solution and agitated for a period of two hours. Gold and silver content of the head sample was determined by fire assay, while gold and silver amounts dissolved by the NaCN were determined by atomic absorption spectrometer. These calculated values are 100% for Au and 76% for Ag. Because the sample is ground to -100 mesh, thereby providing a larger surface area, the results of this test are probably optimistic, however, they will indicate the maximum leachability that may be expected. Results of the Carlin tests are presented in appendix 4.

Rolling bottle tests, a more accurate indication of the leachability of the ore, were run by PBR Mineral's lab. These tests entailed rolling a mixture containing 200 liters of warm NaCN with 200 grams of agglomerate sample for two hours. The NaCN solution was mixed on the basis of 2 lbs NaCN per

ton of solution and the pH of the solution kept at 10. The results of these tests which indicate an average leachability of 40% for Ag and 53% Au, are reported in appendix 5 .

Ore Volumes, Contained Gold and Silver, and Recoverable Gold and Silver

The spent-ore pile was divided into 10 areas, each area represented by one drill hole (Figure 1). The volume associated with each 5-foot core interval, in each of the 10 areas, was then calculated. Once this value was determined the tonnage for each interval was calculated using a density of 123 pounds per cubic foot. This tonage, along with the assay value, were used to determine the amount of gold and silver contained in that portion of the spent-ore pile. Recoverable amounts were determined on the basis of a recovery factor of 53% for gold and 40% for silver. A summary of the calculated amounts is presented in appendix 6.

Conclusions

The results of coring, assaying, and rolling bottle leachability tests indicate that there are approximately 10,032 ounces of gold and 552,819 ounces of silver present in the cored portion of the spent-ore pile (Table 1). Of these amounts 5,317 ounces of gold and 221,127 ounces of silver can be anticipated to be recovered should the spent ore be releached. In addition there are

Area	Volume Cu. Ft	Amt. of Aggl. Tons**	Gold oz/ton*	Total Gold oz	Silver oz/ton*	Total Silver oz	Rec. Gold oz***	Rec. Silver oz***	Value of Gold $	Value of Silver $	Total Value $
#1	558450	34345	0.018	660	0.58	21063	350	8425	$148,642	$54,764	$203,406
#2	851250	52352	0.017	904	0.84	46327	479	18531	$203,662	$120,449	$324,111
#3	1242500	76414	0.010	798	0.68	44656	423	17862	$179,839	$116,105	$295,944
#4	1482740	91189	0.008	766	0.75	68293	406	27317	$172,653	$177,562	$350,216
#5	2627520	161592	0.011	1740	0.69	109977	922	43991	$392,026	$285,939	$677,965
#6	2246100	138135	0.010	1395	0.57	77047	739	30819	$314,275	$200,322	$514,596
#7	1476450	90802	0.007	562	0.47	39984	298	15994	$126,644	$103,958	$230,602
#8	1219240	74983	0.007	528	0.44	31949	280	12780	$118,950	$83,067	$202,018
#9	583250	35870	0.010	358	0.56	20760	190	8304	$80,651	$53,976	$134,628
#10	2666500	163990	0.014	2319	0.56	92764	1229	37105	$522,316	$241,185	$763,501
	14,954,000	919,671	0.011	10,032	0.61	552,819	5,317	221,127	$2,259,658	$1,437,329	$3,696,987
Additional ore taken at average assay value for pile											
		321,809	0.011	3,557	0.61	197,837	1,885	79,135	$801,112	$514,375	$1,315,487
	Total	**1,241,480**		**13,588**		**750,655**	**7,202**	**300,262**	**$3,060,770**	**$1,951,704**	**$5,012,474**

*Using Jacobs Assay Office Assay Results
** Based on a measured 123 lbs/cubic foot
*** Recovery based on rolling bottle tests (Au = .53, Ag = .4)
**** Based on a Gold price of $425.00
***** Based on a Silver price of $6.50

Table 1 - **Summary of the ten spent-ore pile areas**

121,809 tons of spent ore along the toe of the pile that could not be reached by the drill due to the steep slope along the edge of the spent-ore pile and an estimated 200,000 tons north of area 10 which was not drilled. Using the overall average of 0.011 oz/ton gold and 0.61 oz/ton silver this material could yield an additional 1,885 ounces of gold and 79,135 ounces of silver through releaching. A releaching program could yield an anticipated total of 7,202 ounces of gold and 300,262 ounces of silver. The gross in-place value of this amount of gold and silver calculated at a market value of $425.00/oz gold and $6.50/ oz silver is $5,012,474. This is an "in-place" value and does not take into consideration any costs involved in ore preparation, handling, leaching or metal recovery.

APPENDIXES

APPENDIX 1

SAMPLE DESCRIPTIONS

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-LP#1

Start 8/3/88 3:00 PM

PROJECT: PBR Minerals Leach Pad

CLIENT: PBR Minerals

SHEET NO. of

PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	BLOWS PER .6 INCHES	~~CLASSIFICATION (AFTER BURMISTER, 1949)~~ Description	REMARKS
					Agglomerate reddish brn rock chips, clay and sand particles	Rec 0.5 0.0 0.5
	5				No recovery	Rec 0.0 0.0
	10				Agglomerate	Rec 2.5' Hard pavement below 15'
	15					
	20					
	25					
	30					
	35					
	40					
	45					
	50					

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-LP#2

Start 10:08 AM Fin 2:40 PM 8/1/88

PROJECT: PBR - Minerals Leach Pad

CLIENT: PBR Minerals

SHEET NO. 1 of

PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6 INCHES	Description ~~CLASSIFICATION~~ (AFTER BURMISTER, 1959)	REMARKS
	0				Agglomerate reddish brn, rock chips, sand & clay	Rec 1.0 0.2 1.2
	5				Agglomerate as ab	Rec 0.1 0.5 1.4
	10				Agglomerate as ab	Rec 1.2 1.5 2.7
	15				Agglomerate as ab lower ½ oxidized mineralized	Rec 1.6 2.2 3.8
	20				Agglomerate as ab	Rec 2.0 2.0 4.0
	25				Agglomerate as ab	Rec 2.0 1.5 3.5
	30				Agglomerate as ab	Rec 2.5
	35				Leach Pad	Rec 6"
	40					
	45					

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-TP-3

PROJECT: PBR Minerals Heap Leach
CLIENT: PBR Minerals

SHEET NO. of
PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6 INCHES	Description CLASSIFICATION (~~AFTER BURMISTER, 1969~~)	REMARKS
					Agglomerate, Red brn lightly moist red sandy-clay with ¼ - ½" rock chips 50 %	Rec 2'
	5				Agglomerate, reddish lightly moist w ¼ - ½" rock chips 40% 60% reddish sandy clay.	Rec 3'
	10				Agglomerate, reddish brown ¼ to ½" rock chips, with clayey coarse grained sand with clay increasing downward	Rec 2.5'
	15				Agglomerate, reddish brown ¼ - ¾ rock chips with clayey coarse-grn sand tends to compact and stick	Rec 2.5'
	20				Agglomerate as ab Agglomerate as ab	Rec 2' Rec 3'
	25				Agglomerate reddish brn clayey sand w/ shale good mineralization	Rec 1' Rec 2
	30				Agglomerate reddish brn clayey sand w/ shale	Rec 2'
	35				Agglomerate, reddish brown clayey sand w/ rock chips ½" Good mineral	Rec 5'
	40				Agglomerate grey brown, sandy with ½" rock chips moist Good mineralization	Rec 1' 1.5'
	45				45-48 Agglomerate reddish brown sandy; clayey rock chips	Rec 3'
					48-50	Rec 2'
					50-51	Rec 1'

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-LP#3A

PROJECT: PBR Minerals Leach Pile

SHEET NO. 1 of 1

PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6 INCHES	DESCRIPTION CLASSIFICATION (ASTM D2488-69, 1969)	REMARKS
	45					
	48				Start coring @ 48'	
	50				Agglomerate reddish brn rock chips Clay & Sand	Rec .8 compacted
					Agglomerate as ab w/ mineral	Rec 1.0', wc 1.3'
	55				Agglomerate as ab	Rec 2.6'
	60				Agglomerate as ab	Rec 2.0'
	65			65.-66.5	Agglomerate as ab clay lines	Rec 3.8'
	70					

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-TB#4

PROJECT: PBR Minerals Leach Pile
CLIENT: PBR Minerals

SHEET NO. of
PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6 INCHES	Description ~~CLASSIFICATION~~ (~~AFTER BURMISTER, 1958~~)	REMARKS	
					Agglomerate - clamp sand reddish w some clay rock chips (65%)	Rec 4'	
	5				Agglomerate as ab	Rec 3.5'	1.5
	10				Agglomerate red clamp 65% rock chips sand with some clay	Rec 2.2'? compaction?	
	15				Agglomerate red clamp, sand some clay 65±% rock chips Moist	Rec 3.6'	1.5 2.1
	20				Agglomerate red rock chips 65% sand & clay. Moist Rock chips contain oxidized ore	Rec 3.7'	2.8 1.7
	25				Agglomerate reddish, rock chips 65%, sand & clay. Rock chips contain oxidized ore	Rec 3.6'	
	30				Agglomerate reddish brn, rock chips 65% Sand & clay. Rock chips contain oxidized ore	Rec 3.0'	
	35				Agglomerate as ab.	Rec 3.2'	
	40				Agglomerate as ab	Rec 2.0'	
	45				Agglomerate	Rec [illegible]'	
	50				[illegible] at 54'	Rec [illegible]'	

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-TP#5

PROJECT: PBR Minerals leach Pile
SHEET NO. 1 of 2
CLIENT: PBR Minerals.
PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6 INCHES	~~CLASSIFICATION~~ (AFTER BURMISTER, 1950) Description	REMARKS
					Agglomerate reddish brn mod mineralization in rock chips clay and sand material damp	Rec 1.5'
	5				Agglomerate as ab more moist	Rec 4'
	10				Agglomerate as ab ??? brn	Rec 3.2'
	15				Agglomerate as ab reddish brn	Rec 2.0'
	20				Agglomerate as ab	Rec - 2.3'
	25				Agglomerate as ab	Rec - 3.0' Full Recovery
	30				Agglomerate as ab	Rec 3.0' Full recovery
	35				Agglomerate - reddish brn. 75% rock chips, clay & sand Good oxidized mineralization	Rec 3.0' Full Recovery
	40				Agglomerate reddish brn. 75% rock chips good oxidized mineralization. clay & sand material	Rec 3.3'
	45				Agglomerate as ab	Rec 3.0'
	50					

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR - LP#5

PROJECT: PBR Minerals Leach Pile — SHEET NO. 2 of 2

CLIENT: PBR Minerals — PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6 INCHES	Description ~~CLASSIFICATION~~ (~~AFTER BURMISTER, 1959~~)	REMARKS
					Agglomerate reddish brown	Rec 2'
	55				Agglomerate as ab.	Rec 3.4'
	60				Agglomerate as ab.	Rec 3.2'
	65				Clay lime material white clay, Rocks	Rec 3.2'
	70					
	75					
	80					

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-LP 6

PROJECT: PBR Minerals Leach Pile
CLIENT: PBR Minerals

SHEET NO. of
PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6 INCHES	~~CLASSIFICATION (AFTER BURMISTER, 1949)~~ Description	REMARKS
					Agglomerate - reddish brn rock chips w sand & clay material. Damp	2.1' Rec 2 cuts
	5				Agglomerate as ab - oxidized mineralization red & yellow in rock chips - more moist	4.3' Rec 2 cuts
	10				Agglomerate as ab	Rec 4.2' 2 cuts
	15				Agglomerate as ab	Rec 4.5' 2 cuts
	20				Agglomerate as ab	Rec 4.5' 2 cuts
	25				Agglomerate as ab	Rec 3.5' 2 cuts
	30				Agglomerate as ab	Rec 3.2' 1 cut
	35				Agglomerate as ab	Rec 2.9' 1 cut
	40				Agglomerate as ab	Rec 3.0' 1 cut
	45				Agglomerate as ab [illegible]	Rec [illegible]
	50				[illegible]	[illegible]

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR - LP #7

PROJECT: PBR Leach Pad
CLIENT: PBR Minerals

SHEET NO. of
PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6 INCHES	~~CLASSIFICATION (AFTER BURMISTER, 1950)~~ Description	REMARKS
					Agglomerate, damp, reddish brn rock chips, clay and sand particles	Rec 1.80' Rec 0' 1.80'
	5				Agglomerate, damp reddish brn. rock chips, clay & sand particles. Rock chips are oxidized to red & yellow	Rec 0.2 Rec 1.9 2.1
	10				Agglomerate as ab moisture increasing lower 1' more brown in color	Rec 2.1 Rec 2.1
	15				Agglomerate as ab top 1.5' brownish then >>> more red	Rec 2.5 Rec 2.0 4.5
	20				Agglomerate as. ab.	Rec 2.3 Rec 2.0 4.3
	25				Agglomerate as. ab.	Rec 2.0 Rec 2.1 4.1
	30				Agglomerate as ab	Rec 2.1 2.0 4.1
	35				Agglomerate as ab >> more brown in color	Rec 1.9 2.0 3.9
	40				Agglomerate as ab	Rec 2.9
	45			45-41	Agglomerate as ab Clayline 46-45	Re 3.0

GEOCHEMICAL ENGINEERING
INCORPORATED

TEST BORING LOG

NO. PBR-LP #8

PROJECT:
CLIENT:

SHEET NO. of
PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6 INCHES	~~CLASSIFICATION (AFTER BURMISTER, 1959)~~ Description	REMARKS
					Agglomerate reddish brown, rock chips, sand and clay material damp	Rec 1' Rec 1.5 2.5
	5				Agglomerate as ab oxidized mineralization	Rec 1.5' Rec 2.0'
	10				Agglomerate as above more moist	Rec 2.2' 2.2'
	15				Agglomerate as ab	Rec 2.2' 2.3' 4.5
	20				Agglomerate as ab	Rec 1.8' 2.0 3.8'
	25				Agglomerate as ab	Rec 1.8 1.8 3.6
	30				Agglomerate as ab	Rec 2.5' Fallout
	35				35-39 Agglomerate as ab 39-40 Clay liner material	5.0
	40					

GEOCHEMICAL ENGINEERING
INCORPORATED

TEST BORING LOG

Aug 2/22 9:45 AM -

NO. PBR-LP#9

PROJECT: PBR Minerals Leach Pad
CLIENT: PBR Minerals

SHEET NO. of
PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6 INCHES	~~CLASSIFICATION (ASTM D2488-69)~~ Description	REMARKS
	0				Agglomerate – reddish brown rock chips w sand and clay size particles sl. damp	Rec 1.2 / 1.0 / 2.2
	5				Agglomerate as ab more moist lower ½ shows oxidized minerals (red & Yellow)	Rec 1.7 / 2.0 / 3.7
	10				Agglomerate as ab	Rec 0.2 / 2.0 / 2.2
	15				Agglomerate as ab	Rec 1.9 / 2.0 / 3.9
	20				Agglomerate as ab	Rec 1.0 / 2.0 / 3.0
	25				Agglomerate as ab	Rec 2.2 / 2.2 / 4.4
	30			30-34	Agglomerate as ab	Rec 2.9
				34-35	Clay liner	

GEOCHEMICAL ENGINEERING INCORPORATED

TEST BORING LOG

NO. PBR-LP10

9/2/88 1:00 PM

PROJECT:

CLIENT:

SHEET NO. of

PROJECT NO.

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6 INCHES	~~CLASSIFICATION (TAMPER, BURMISTER, 1960)~~ Description	REMARKS
					Agglomerate - Reddish brn rock chips w clay and sand material	Rec 0.7 .9 1.6
	5				Agglomerate as ab w red mineralized in chips (red & yellow) => brown toward bottom	Rec 1.3' 1.9 3.3'
	10				Agglomerate as ab	Rec 2.0 2.0 4.00
	15				Agglomerate as ab	Rec 1.9 2.0
	20				Agglomerate as ab	Rec 2.0 2.5 4.5
	25				Agglomerate as ab Started encountering large rocks at 29'	Rec 1.5'
	30				Agglomerate as ab hard drilling. Size of rocks increasing unable to penetrate below 35'	3.8' 0.8 3.8
	35				Will move rig 5' from this hole then auger down to see if rig can go	35' deeper
	40				Note: Augered down to 30' encountered large rock at 30'. Pulled off hole 3/8/88 9:30 AM	
	45					
	50					

APPENDIX 2

DENSITY TESTS

SOIL/AGGRE TE FIELD DENSITY - SAND CONE I "HOD

Type of Material _____ Job No. _____

Source of Material _____ Lab./Invoice No. _____

Test Locations Designated By _____ Tested/Calc. By _____ Date _____

Moisture/Density Per _____ Method _____ Reviewed By _____ Date _____

Test Hole No.					
Date of Test					
Location of Test Hole					
Elevation of Test †					
Depth of Fill					
(1) Initial wt. Apparatus and sand, lbs.					
(2) Final wt. Apparatus and sand, lbs.					
(3) Total Wt. Sand Used, lbs. (1) - (2)					
(4) Wt. Sand in Funnel and Plate, lbs.					
(5) Wt. Sand to Fill Hole, lbs. (3) - (4)					
(6) Bulk Density of Sand, pcf					
(7) Volume of Hole, cu. ft. (5) ÷ (6)					
(8) Wt. Mtrl. from Hole, lbs.					
(9) Wet Density, pcf (8) ÷ (7)					
Specific Gravity of + #4 Mtrl.					
(10) Wt. of + #4 Mtrl.					
% of + #4 Mtrl. Lab./Field [(10) ÷ (8)] × 100	/	/	/	/	/
Moisture/Density Lab. No.					
Optimum Moisture, %					
Max. Dry Density (lab), pcf					
(11) Max. Dry Density (corr.), pcf See Chart					
(12) Wet Wt. Moisture Sample, gms					
(13) Dry Wt. Moisture Sample, gms					
(14) % Moisture - #4 Mtrl. Speedy or $\frac{(12)-(13)}{(13)} \times 100$					
(15) % Moisture, Tot. Sample Corr. (14) See Chart					
(16) Report % Moisture: Use (14) if M/D Method A or B; use (15) if M/D Method C or D					
(17) Dry Density, pcf $\frac{(9)}{(15)+100} \times 100$					130.9
Relative Compaction, % $\frac{(17)}{(11)} \times 100$					
Within Specifications? Circle Answer	yes no 20	yes no 20	yes no 20	yes no 20	yes no 20
ments*					

8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. _____

14. Tested ASTM D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock Correction applied to maximum dry density per AASHTO T-224
18. Other _____

19. Test Locations Shown on Accompanying Site Plan
20. Specifications Unknown

† Datum _____

WESTERN TECHNOLOGIES INC.

SOIL/AG EGATE - MOISTURE DENSITY REI IONS

Job No. _____

Lab./Invoice No. _____

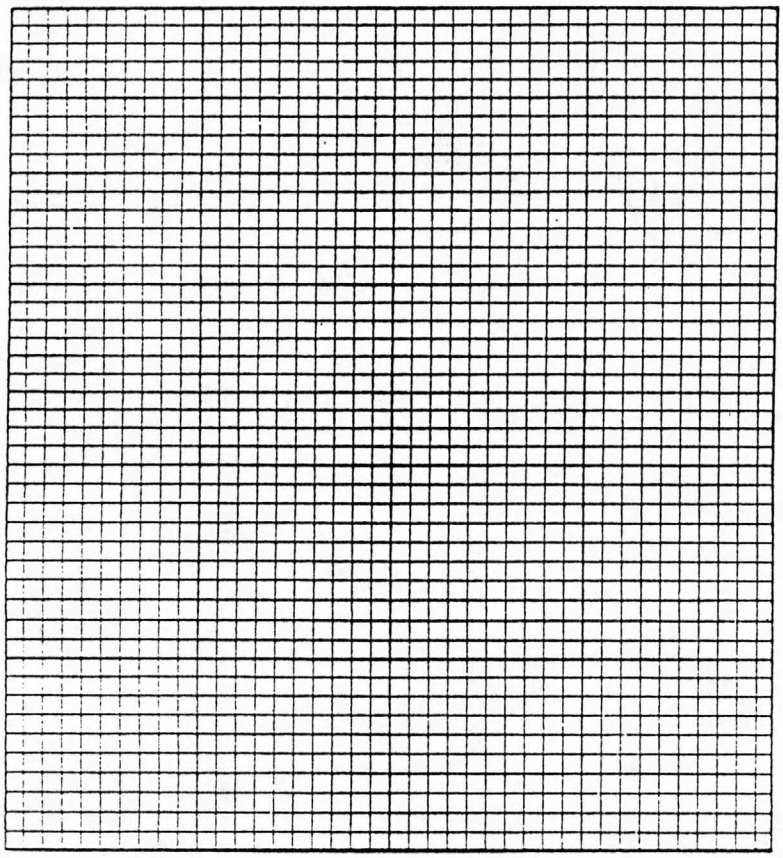
Type of Materia: Leach Pad Tailings Sampled By _____ Date 7-30-

Source of Material 500' S of East End Pad Submitted By _____ Date _____

Test Procedure D698A Tested/Calc. By _____ Date _____

_____ Reviewed By _____ Date _____

Trial No.	1	2	3	4	5	6	7
Water, estimated %							
Water, cc	0	50	100				
Wt. Sample + Mold	13.875	14.000	13.9375				
Wt. Mold	9.3125	9.3125	9.3125				
Wt. Wet Sample, gm	—	—	—				
Wt. Wet Sample, lbs.	4.56	4.69	4.63				
Wet Density, pcf	136.94	140.84	139.04				
Moisture Sample, wet	100.52	100.76	101.09				
Moisture Sample, Dry	~~101.43~~	90.05	88.97				
Wt. Moisture	9.09	10.62	12.12				
Moisture, %	9.04	10.55	11.95				
Dry Density, pcf	124.56	125.58	122.15				



DRY DENSITY - PCF

MOISTURE CONTENT, % DRY WEIGHT

Max. Dry density, pcf 125.58

Optimum Moisture Content, % 10.5

Diameter of Mold, in. 4"

Height of Mold, in. 4.6"

No. of Layers 3

Blows per Layer 25

Wt. of Hammer, lbs. 10#

Height of Drop 12"

Material Used - #4 m

SOIL/AG EGATE - MOISTURE DENSITY REL. .IONS

Job No. _____

Lab./Invoice No. _____

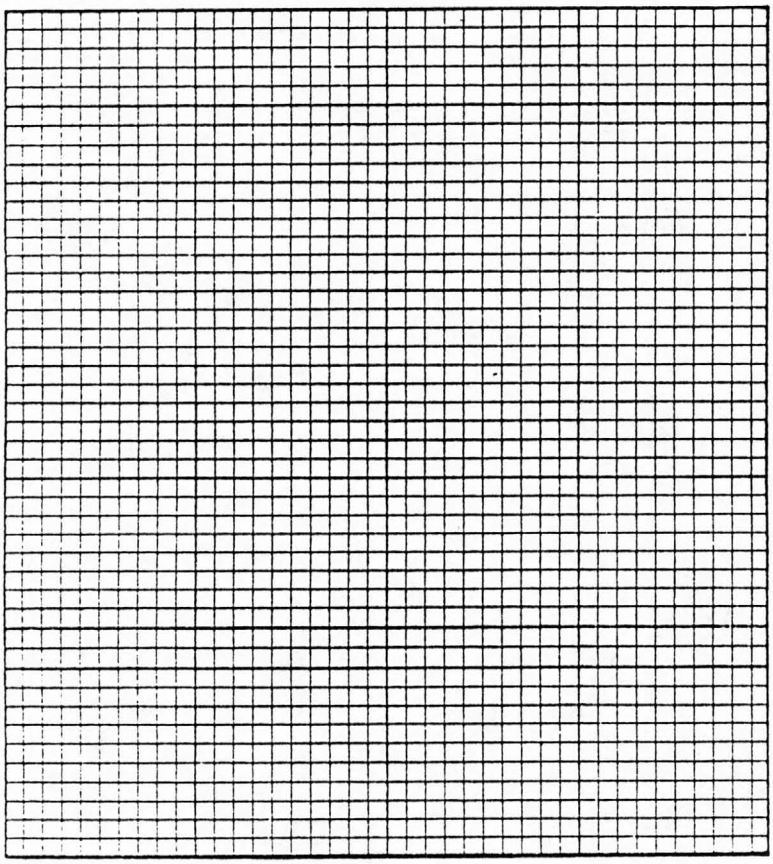
Type of Materia: Heap Leach Tailings — Sampled By _____ Date 7-25-[illegible]

Source of Material East End Tailings P.P. — Submitted By _____ Date _____

Test Procedure D698A — Tested/Calc. By [illegible] Date _____

_____ — Reviewed By _____ Date _____

Trial No.	1	2	3	4	5	6	7
Water, estimated %							
Water, cc	0	50	100				
Wt. Sample + Mold	13.625	13.8125	13.8125				
Wt. Mold	9.3125	9.3125	9.3125				
Wt Wet Sample, gm	—	—	—				
Wt. Wet Sample, lbs.	4.31	4.50	4.50				
Wet Density, pcf	129.43	135.14	135.14				
Moisture Sample, wet	110.37	104.58	101.04				
Moisture Sample, Dry	100.76	94.35	89.32				
Wt. Moisture	9.61	10.23	11.72				
Moisture, %	9.71	9.78	11.60				
Dry Density, pcf	118.15	121.92	118.58				



DRY DENSITY - PCF

MOISTURE CONTENT, % DRY WEIGHT

Max. Dry density, pcf 121.92

Optimum Moisture Content, % 9.78

Diameter of Mold, in. 4"

Height of Mold, in. 4.5"

No. of Layers ~~4.5"~~ 3

Blows per Layer 25

Wt. of Hammer, lbs. 10#

Height of Drop 12"

Material Used - #4 M

23478
150.21

[redacted]

APPENDIX 3

ASSAY RESULTS

1435 S. 10th AVE.

Jacobs Assay Office

Registered Assayers

PHONE 622-0813

TUCSON, ARIZONA 85713

Certificate No.

8/16/88 19

Sample Submitted By Mr. P B R MINERALS

SAMPLE MARKED		GOLD OZ.PER TON	SILVER OZ.PER TON
#1	0-5	0.011	0.45
		0.013	0.60
	5-10	0.010	0.40
	10-15	0.033	0.90
		0.025	0.95
#2	0-5	0.007	0.70
	5-10	0.013	0.65
		0.020	0.70
	10-15	0.044	2.05
	15-20	0.016	0.85
		0.015	0.95
	20-25	0.009	0.50
	25-30	0.018	0.50
		0.021	0.55
	30-35	0.009	0.60
#3	0-5	0.013	0.45
		0.013	0.50
	5-10	0.016	0.60
	10-15	0.019	0.95
		0.015	1.05
	15-20	0.008	0.65
	20-25	0.010	0.80
		0.013	0.80
	25-30	0.009	0.65
	30-35	0.008	0.40
		0.011	0.45
	35-40	0.009	0.60
	40-45	0.011	0.30
		0.007	0.35
	45-48	0.012	0.35
#3A	48-50	0.011	0.75
		0.014	0.80
	50-55	0.009	0.75
	55-60	0.006	0.45
		0.007	0.45
	60-65	0.002	0.30
	65-66.5	0.004	0.35
		0.006	0.40

SAMPLE MARKED		GOLD OZ.PER TON	SILVER OZ.PER TON
#4	0-5	0.007	0.45
	5-10	0.011	0.65
		0.012	0.65
	10-15	0.010	1.05
	15-20	0.010	0.55
		0.012	0.80
	20-25	0.010	0.75
	25-30	0.014	0.95
		0.019	0.95
	30-35	0.013	1.00
	35-40	0.006	0.55
		0.005	0.60
	40-45	0.002	0.45
	45-50	0.010	0.50
		0.007	0.60
	50-54	TRACE	1.25
#5	0-5	TRACE	0.60
		TRACE	0.50
	5-10	0.008	0.65
	10-15	0.053	2.05
		0.046	2.10
	15-20	0.010	1.25
	20-25	0.010	1.10
		0.009	1.15
	25-30	0.010	0.75
	30-35	0.004	0.05
		0.004	0.15
	35-40	0.003	0.25
	40-45	0.005	0.35
		0.003	0.35
	45-50	0.018	0.40
	50-55	0.009	0.25
		0.007	0.35
	55-60	0.006	0.75
	60-65	0.005	0.35
		0.006	0.45

FIRE-ASSAY

K=less than

REGISTERED ASSAYER CERTIFICATE MICHAEL G. JACOBS DATE 8/16/88 SIGNED ARIZONA U.S.

Very respectfully,

[signature]

Charges $ 666.00

1435 S. 10th AVE.

Jacobs Assay Office

Registered Assayers

PHONE 622-0813

Certificate No.........................

TUCSON, ARIZONA 85713 ....8/17/88.... 19 ......

Sample Submitted By Mr. P B R MINERALS

SAMPLE MARKED	GOLD OZ. PER TON		SILVER OZ. PER TON
#6 0-5	0.009		0.75
5-10	0.008		0.60
	0.005		0.55
10-15	0.005		0.70
15-20	0.005		0.45
	0.004		0.50
20-25	0.004		0.35
25-30	0.009		0.65
	0.013		0.65
30-35	0.012		0.85
35-40	0.013		0.70
	0.015		0.75
40-45	0.010		0.45
45-50	0.011		0.35
	0.015		0.30
50-53	0.015		0.40
#7 0-5	0.007		0.50
	0.005		0.45
5-10	0.010		0.60
10-15	0.012		0.65
	0.012		0.75
15-20	0.006		0.50
> 20-25	0.009		0.45
25-30	0.012		0.40
30-35	0.005		0.30
	0.003		0.30
35-40	0.005		0.35
40-45	0.005		0.40
	0.001		0.35
45-46	TRACE		0.40
#8 0-5	0.015		0.90
	0.015		0.90
5-10	0.005		0.50
10-15	0.003		0.30
	0.002		0.25
15-20	0.002		0.40
20-25	0.005		0.45
	0.007		0.35

SAMPLE MARKED	GOLD OZ. PER TON		SILVER OZ. PER TON
#8 25-30	0.009		0.15
30-35	0.007		0.55
	0.008		0.60
#9 0-5	0.009		0.40
	0.007		0.40
5-10	0.010		0.40
10-15	0.010		0.55
	0.008		0.70
15-20	0.007		0.65
20-25	0.010		0.50
	0.014		0.55
25-30	0.011		0.50
30-35	0.009		0.70
> #7 20-25			
dupl	0.006		0.55
#8 35-40	0.008		0.40
#9 30-35			
dupl	0.011		0.75

FIRE-ASSAY

<=less than

REGISTERED ASSAYER CERTIFICATE NO. ... JACOBS ... 8/17/... ARIZONA U.S.A.

Very respectfully,

[signature]

Charges $ 486.00

1435 SOUTH 10TH AVENUE
TUCSON ARIZONA 85713

Jacobs Assay Office
Registered Assayers

PHONE 622 0813

Tucson, Arizona, 8/17/88 19____

Sample Submitted by Mr. P B R MINERALS

Sample Marked	GOLD Ozs. per ton ore	~~GOLD Value per ton ore*~~	SILVER Ozs. per ton ore	~~COPPER Per cent Wet Assay~~	~~LEAD Per cent Wet Assay~~	~~Per Cent Wet Assay~~	~~Per Cent Wet Assay~~	~~Per Cent Wet Assay~~
10								
0-5	0.008		0.35					
5-10	0.014		0.60					
	0.010		0.45					
10-15	0.012		0.55					
15-20	0.017		0.90					
	0.018		0.95					
20-25	0.018		0.55					
25-30	0.015		0.55					
	0.018		0.60					
30-35	0.017		0.40					

FIRE-ASSAY
<=less than

REGISTERED ASSAYER CERTIFICATE NO. 2765 MICHAEL G. JACOBS DATE SIGNED 8/17/88 Arizona U. S. A.

Charges $ 90.00

Very respectfully,

Date: 7-31-88 & 8-1-88

Fire Assay
Heads

Troy oz/ton

Sample Identification		Au	Ag		Au	Ag				
PBR LP #3	0'-10'	.010	.45							
–	10'-20'	.005	.85							
–	20'-30'	.010	.57							
–	30'-40'	.020	80							
–	40'-45'	.015	.49							
–	45'-48'	.094	.76	AV	.01907	.653				
PBR LP #4	0'-10'	.015	.74							
	10'-20'	.010	.54							
	20'-30'	.015	1.00							
	30'-40'	.020	.76							
	40'-50'	.020	1.19							
	50'-54'	.030	1.21	AV	.0183	.9066				

REMARKS:

Assays = Average of duplicate samples

Date: 8-3-88

Fire Assay Heads

Troy oz/ton

Sample Identification	Au	Ag
PBR LP 6 0-5	.010	1.00
5-10	.010	.54
10-15	.014	.68
15-20	.010	.42
20-25	.014	.72
25-30	.010	.65
30-35	.020	.83
35-40	.020	1.42
40-45	.014	.63
45-50	.020	.82
50-53	.014	.67
Av	.01418	.7618

REMARKS:

Laboratory Analysis

Date: 8-3-88

Fire Assay
Heads

Troy oz/ton

Sample Identification	Au	Ag							
PBR LP #7 0-5	.060	1.74							
5-10	.005	.73							
10-15	.014	.93							
15-20	.020	.64							
20-25	.010	.74							
25-30	.005	.59							
30-35	.010	.46							
35-40	.014	.55							
40-45	.010	.69							
45-46	.010	.81							
AV	.0153	.7078							

REMARKS:

Date: 8-4-88

Fire Assay Heads

Troy oz/ton

Sample Identification		Au	Ag
PBR LP #8	0-5	.007	.82
	5-10	<.005	.55
	10-15	.050	2.61
	15-20	.020	1.19
	20-25	.005	.68
	25-30	.005	.50
	30-35	<.005	.54
	35-40	.007	.44
	Au	.013	.916

REMARKS:

Date: 8-4-88

Fire Assay
Heads

Troy oz/ton

Sample Identification	Au	Ag							
PBR LP#9 0-5	<.005	.50							
5-10	.010	.62							
10-15	.007	.73							
15-20	.007	.74							
20-25	.010	.81							
25-30	.007	.67							
30-35	.014	1.27							
AV	.00857	.7628							

REMARKS:

APPENDIX 4

CARLIN TEST RESULTS

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

REPORT OF ANALYSIS

JOB NO. VMM 002
August 8, 1988
PBR-LP #3
PAGE 1 OF 1

GEOCHEMICAL ENGINEERING, INC.
Attn: Mr. F.A. Peel
274 Union Blvd., Suite 460
Lakewood, CO 80228

Analysis of 10 Rock Chip Samples

ITEM	SAMPLE NUMBER	BY A.A.S. Au (oz/t)	BY A.A.S. Ag (oz/t)	FIRE ASSAY Au (oz/t)	FIRE ASSAY Ag (oz/t)
1	PBR-LP #3 0-5	.005	.29	.005	.44
2	PBR-LP #3 5-10	.005	.45	.005	.51
3	PBR-LP #3 10-15	.010	.79	.010	.84
4	PBR-LP #3 15-20	<.005	.38	<.005	.51
5	PBR-LP #3 20-25	<.005	.62	<.005	.64
6	PBR-LP #3 25-30	<.005	.38	<.005	.44
7	PBR-LP #3 30-35	<.005	.34	<.005	.41
8	PBR-LP #3 35-40	.005	.56	.005	.58
9	PBR-LP #3 40-45	<.005	.23	<.005	.29
10	PBR-LP #3 45-48	.010	.37	.010	.44

cc: PBR Minerals
P.O. Box 370
Tombstone, AZ 85638

Charles E. Thompson
Arizona Registered Assayer No. 9427

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

REPORT OF ANALYSIS

JOB NO. VMM 001
August 8, 1988
PBR-LP #4
PAGE 1 OF 1

GEOCHEMICAL ENGINEERING, INC.
Attn: Mr. F.A. Peel
274 Union Blvd., Suite 460
Lakewood, CO 80228

Analysis of 11 Rock Chip Samples

ITEM	SAMPLE NUMBER	BY A.A.S. Au (oz/t)	BY A.A.S. Ag (oz/t)	FIRE ASSAY Au (oz/t)	FIRE ASSAY Ag (oz/t)
1	PBR-LP #4 0-5	.005	.36	.010	.54
2	PBR-LP #4 5-10	.010	.53	.010	.60
3	PBR-LP #4 10-15	.010	.86	.010	.88
4	PBR-LP #4 15-20	.010	.62	.010	.76
5	PBR-LP #4 20-25	.010	.64	.010	.70
6	PBR-LP #4 25-30	.010	.81	.010	.88
7	PBR-LP #4 30-35	.015	.68	.015	.82
8	PBR-LP #4 35-40	.005	.42	.005	.48
9	PBR-LP #4 40-45	.010	.32	.010	.45
10	PBR-LP #4 45-50	.005	.29	.005	.38
11	PBR-LP #4 50-54*	.010	1.28	.010	1.28

cc: PBR Minerals
P.O. Box 370
Tombstone, AZ 85638

*NOTE: Sample bag marked PBR-LP #4 50-55.

*NOTE: Values based on the analysis of not agitated cyanide leach solutions.

Charles E. Thompson
Chief Chemist

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

REPORT OF ANALYSIS

JOB NO. VMM 003
August 18, 1988
PBR-LP #6

GEOCHEMICAL ENGINEERING, INC.
Attn: Mr. F.A. Peel
274 Union Blvd., Suite 460
Lakewood, Co 80228

Analysis of 11 Rock Chip Samples

ITEM	SAMPLE NO.	FIRE ASSAY Au (oz/t)	FIRE ASSAY Ag (oz/t)	BY A.A.S. Au* (oz/t)	BY A.A.S. Ag* (oz/t)
1	PBR-LP #6 0-5	.005	.62	.005	.42
2	PBR-LP #6 5-10	<.005	.46	.005	.30
3	PBR-LP #6 10-15	.005	.53	.005	.40
4	PBR-LP #6 15-20	.005	.40	.010	.24
5	PBR-LP #6 20-25	<.005	.43	.005	.28
6	PBR-LP #6 25-30	.005	.55	.005	.37
7	PBR-LP #6 30-35	.010	.81	.005	.54
8	PBR-LP #6 35-40	.010	.64	.010	.42
9	PBR-LP #6 40-45	.005	.52	.005	.31
10	PBR-LP #6 45-50	<.005	.29	<.005	.15
11	PBR-LP #6 50-53	.005	.55	.010	.34

*NOTE: Values based on the analysis of hot agitated cyanide leach solutions.

cc: PBR Minerals
P.O. Box 370
Tombstone, AZ 85638

William L. Lehmbeck
Manager

REGISTERED ASSAYER
CERTIFICATE NO. 9425
WILLIAM L. LEHMBECK
DATE SIGNED

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

REPORT OF ANALYSIS

JOB NO. VMM 004
August 18, 1988
PBR-LP #7
PAGE 1 OF 1

GEOCHEMICAL ENGEERING, INC.
Attn: Mr. F.A. Peel
274 Union Blvd., Suite 460
Lakewood, Co 80228

Analysis of 10 Rock Chip Samples

ITEM	SAMPLE NUMBER	FIRE ASSAY Au (oz/t)	FIRE ASSAY Ag (oz/t)	BY A.A.S. Au* (oz/t)	BY A.A.S. Ag* (oz/t)
1	PBR-LP #7 0-5	.005	.49	.010	.30
2	PBR-LP #7 5-10	.005	.64	.010	.38
3	PBR-LP #7 10-15	.010	.61	.010	.43
4	PBR-LP #7 15-20	<.005	.53	.005	.32
5	PBR-LP #7 20-25	.005	.58	.010	.37
6	PBR-LP #7 25-30	.010	.48	.010	.30
7	PBR-LP #7 30-35	<.005	.38	<.005	.22
8	PBR-LP #7 35-40	<.005	.42	.005	.23
9	PBR-LP #7 40-45	<.005	.34	<.005	.20
10	PBR-LP #7 45-46	<.005	.30		

*NOTE: Values based on the analysis of hot agitated cyanide leach solutions.

cc: PBR Minerals
P.O. Box 870
Tombstone, AZ 85638

Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

James A. Martin
Arizona Registered Assayer No. 11122

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

REPORT OF ANALYSIS

JOB NO. VMM 005
August 10, 1988
PBR-LP #8

GEOCHEMICAL ENGINEERING, INC.
Attn: Mr. F.A. Peel
274 Union Blvd., Suite 460
Lakewood, CO 80228

Analysis of 8 Rock Chip Samples

ITEM	SAMPLE NUMBER	FIRE ASSAY Au (oz/t)	FIRE ASSAY Ag (oz/t)	BY A.A.S. Au* (oz/t)	BY A.A.S. Ag* (oz/t)
1	PBR LP #8 0-5	.015	.84	.015	.52
2	PBR LP #8 5-10	.005	.58	.005	.39
3	PBR LP #8 10-15	<.005	.40	<.005	.20
4	PBR LP #8 15-20	.005	.58	.005	.40
5	PBR LP #8 20-25	.005	.37	<.005	.24
6	PBR LP #8 25-30	<.005	.36	<.005	.19
7	PBR LP #8 30-35	<.005	.48	<.005	.32
8	PBR LP #8 35-40	.005	.48	.005	.27

*NOTE: Values based on the analysis of hot agitated cyanide leach solutions.

cc: PBR Minerals
P.O. Box 370
Tombstone, AZ 85638

Charles E. Thompson

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

REPORT OF ANALYSIS

JOB NO. VMM 006
August 10, 1988
PBR LP #9

GEOCHEMICAL ENGINEERING, INC.
Attn: Mr. F.A. Peel
274 Union Blvd., Suite 460
Lakewood, CO 80228

Analysis of 7 Rock Chip Samples

ITEM	SAMPLE NUMBER	FIRE ASSAY Au (oz/t)	FIRE ASSAY Ag (oz/t)	BY A.A.S. Au* (oz/t)	BY A.A.S. Ag* (oz/t)
1	PBR LP #9 0-5	.005	.37	<.005	.28
2	PBR LP #9 5-10	.010	.50	.005	.30
3	PBR LP #9 10-15	.005	.52	.005	.29
4	PBR LP #9 15-20	.005	.46	.005	.32
5	PBR LP #9 20-25	.005	.43	.005	.35
6	PBR LP #9 25-30	.005	.40	.005	.31
7	PBR LP #9 30-35	.005	.58	.005	.46

*NOTE: Values based on the analysis of hot agitated cyanide leach solutions.

cc: PBR Minerals
P.O. Box 370
Tombstone, AZ 85638

Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

James A. Martin
Arizona Registered Assayer No. 11122

APPENDIX 5

ROLLING BOTTLE TEST RESULTS

	AU OZ/TON	AG OZ/TON	AU OZ RECOVERED	AG OZ RECOVERED
PBRLP1				
0-5	0.00500	0.32000	0.00300	0.08000
5-10	0.00500	0.17000	0.00600	0.12000
10-15	0.01700	0.94000	0.01500	0.85000
AVERAGE	0.00900	0.47667	0.00800	0.35000
PBRLP2				
0-5	0.01200	1.18000	0.00300	0.12000
5-10	0.00700	0.74000	0.00600	0.42000
10-15	0.01000	0.72000	0.00900	0.26000
15-20	0.03000	0.76000	0.00600	0.28000
20-25	0.02700	0.47000	0.00300	0.16000
25-30	0.02000	0.42000	0.00300	0.14000
30-35	0.01400	0.51000	0.00300	0.16000
AVERAGE	0.01714	0.68571	0.00471	0.22000
PBRLP3				
0-10	0.010	0.45	0.00750	0.30000
10-20	0.005	0.85	0.00750	0.31500
20-30	0.010	0.57	0.00600	0.23500
30-40	0.020	0.80	0.00750	0.30000
40-45	0.015	0.49	0.00600	0.24000
45-48	0.09400	0.76000	0.01200	0.30000
48-50	0.02000	1.02000	0.00600	0.18000
50-55	0.02200	1.06000	0.00900	0.80000
55-60	0.00500	0.47000	0.00600	0.15000
60-65	0.00700	0.44000	0.00600	0.12000
65-65.5	0.02000	0.64000	0.00900	0.12000
AVERAGE	0.0207273	0.68636	0.00750	0.27818
PBRLP4				
0-10	0.01500	0.74000	0.00900	0.35500
10-20	0.01000	0.54000	0.00900	0.44000
20-30	0.01500	1.00000	0.01350	0.29000
30-40	0.02000	0.76000	0.02750	0.57000
40-50	0.02000	1.19000	0.01200	0.34000
50-54	0.03000	1.21000	0.01500	0.97000
AVERAGE	0.01833	0.90667	0.01433	0.49417
PBRLP5				
0-5	0.00700	0.68000	0.00900	0.20000
5-10	0.01500	1.60000	0.00600	0.44000
10-15	0.02000	1.21000	0.00900	0.52000
15-20	0.01000	1.64000	0.01200	0.85000
20-25	0.02000	1.50000	0.00600	0.32000
25-30	0.00700	0.69000	0.00600	0.25000
30-35	0.00500	0.48000	0.00300	0.04000
35-40	0.00500	0.43000	0.00300	5.00000
40-45	0.00500	0.54000	0.00600	0.03000
45-50	0.00500	0.46000	0.00600	0.06000
50-55	0.00500	0.43000	0.00600	0.08000
55-60	0.02000	1.03000	0.01200	0.52000
60-65	0.01200	0.35000	0.00600	0.06000
AVERAGE	0.01046	0.84923	0.00692	0.64385

PBRLP6				
0-5	0.01000	1.00000	0.00300	0.42000
5-10	0.010	0.54	0.01200	0.21000
10-15	0.014	0.68	0.01500	0.25000
15-20	0.010	0.42	0.00300	0.11000
20-25	0.014	0.70	0.00300	0.19000
25-30	0.010	0.65	0.00600	0.42000
30-35	0.020	0.83	0.00600	0.62000
35-40	0.020	1.42	0.00900	0.47000
40-45	0.014	0.63	0.00600	0.11000
45-50	0.020	0.82	0.00300	0.21000
50-53	0.01400	0.67000	0.00300	0.20000
AVERAGE	0.01418	0.76000	0.00627	0.29182
PBRLP7				
0-5	0.06000	1.74000	0.04000	0.26000
5-10	0.00500	0.73000	0.00600	0.30000
10-15	0.01400	0.93000	0.00300	0.34000
15-20	0.02000	0.64000	0.00600	0.06000
20-25	0.01000	0.74000	0.00900	0.21000
25-30	0.00500	0.59000	0.01200	0.18000
30-35	0.01000	0.46000	0.00300	0.00300
35-40	0.01400	0.55000	0.00600	0.08000
40-45	0.01000	0.69000	0.00600	0.12000
45-46	0.01000	0.81000	0.00600	0.12000
AVERAGE	0.01580	0.78800	0.00970	0.16730
PBRLP8				
0-5	0.00700	0.82000	0.01800	0.67000
5-10	0.00500	0.55000	0.01500	0.15000
10-15	0.05000	2.61000	0.00600	0.03000
15-20	0.02000	1.19000	0.00600	0.31000
20-25	0.00500	0.68000	0.00900	0.10000
25-30	0.00500	0.50000	0.00900	0.14000
30-35	0.00500	0.54000	0.00600	0.26000
35-40	0.00700	0.44000	0.00600	0.20000
AVERAGE	0.01300	0.91625	0.00938	0.23250
PBRLP9				
0-5	0.00500	0.50000	0.00600	0.24000
5-10	0.01000	0.62000	0.00300	0.18000
10-15	0.00700	0.73000	0.02800	0.22000
15-20	0.00700	0.74000	0.01200	0.30000
20-25	0.01000	0.81000	0.00300	0.43000
25-30	0.00700	0.67000	0.00600	0.33000
30-35	0.01400	1.27000	0.00600	0.28000
AVERAGE	0.00857	0.76286	0.00914	0.28286
PBRLP10				
0-5	0.00700	0.65000	0.00300	0.42000
5-10	0.01000	0.68000	0.00600	0.24000
10-15	0.01700	0.57000	0.00900	0.29000
15-20	0.01500	0.73000	0.01200	0.52000
20-25	0.04000	0.86000	0.02200	0.48000
25-30	0.28000	4.94000	0.05400	0.78000
30-35	0.03500	0.59000	0.01800	0.40000
AVERAGE	0.05771	1.28857	0.01771	0.44714

AVERAGES				
PBRLP1	0.00900	0.47667		
PBRLP2	0.01714	0.68571	0.01771	0.44714
PBRLP3	0.02072	0.68630	0.01955	0.45054
PBRLP4	0.01830	0.90660	0.01433	0.49417
PBRLP5	0.01040	0.84920	0.00692	0.64385
PBRLP6	0.01400	0.76900	0.00627	0.29182
PBRLP7	0.01580	0.78800	0.00970	0.16730
PBRLP8	0.01300	0.91620	0.00938	0.23250
PBRLP9	0.00857	0.76280	0.00914	0.28286
PBRLP10	0.05771	1.28850	0.01771	0.44714
TOTAL AVERAGE	0.01846	0.81290	0.01049	0.36566

APPENDIX 6

GOLD AND SILVER CONTENT AND RECOVERY CALCULATIONS

Area # 1

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	145010	8918	0.010	89	0.45	4013	47	1605
5 to10	189720	11668	0.010	117	0.40	4667	62	1867
10 to 15	223720	13759	0.033	454	0.90	12383	241	4953
15 to 20	225420	13863		0		0	0	0
20 to 25	241740	14867		0		0	0	0
25 to 30	225590	13874		0		0	0	0
30 to 35	224400	13801		0		0	0	0
35 to 40	199920	12295		0		0	0	0
40 to 45	159630	9817		0		0	0	0
	558450	34345	0.018	660	0.58	21063	350	8425
	1835150	112862						

Area # 2

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	149400	9188	0.007	64	0.70	6432	34	2573
5 to10	146850	9031	0.013	117	0.65	5870	62	2348
10 to 15	142650	8773	0.044	386	2.05	17985	205	7194
15 to 20	134250	8256	0.016	132	0.85	7018	70	2807
20 to 25	110550	6799	0.009	61	0.50	3399	32	1360
25 to 30	91050	5600	0.018	101	0.50	2800	53	1120
30 to 35	76500	4705	0.009	42	0.60	2823	22	1129
35 to 40	61950	3810		0		0	0	0
40 to 45	41700	2565		0		0	0	0
	851250	52352	0.017	904	0.84	46327	479	18531
	954900	58726						

Area # 3

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	120680	7422	0.013	96	0.45	3340	51	1336
5 to10	119280	7336	0.016	117	0.60	4401	62	1761
10 to 15	111020	6828	0.015	102	1.05	7169	54	2868
15 to 20	108640	6681	0.008	53	0.65	4343	28	1737
20 to 25	106400	6544	0.010	65	0.80	5235	35	2094
25 to 30	105700	6501	0.009	59	0.65	4225	31	1690
30 to 35	104020	6397	0.008	51	0.40	2559	27	1024
35 to 40	91000	5597	0.009	50	0.60	3358	27	1343
40 to 45	85400	5252	0.011	58	0.30	1576	31	630
45 to 50	78960	4856	0.013	63	0.35	1700	33	680
50 to 55	71680	4408	0.009	40	0.78	3438	21	1375
55 to 60	63980	3935	0.007	28	0.45	1771	15	708
60 to 65	52360	3220	0.002	6	0.30	966	3	386
65 to 70	23380	1438	0.006	9	0.40	575	5	230
	1242500	76414	0.010	798	0.68	44656	423	17862

Area # 4

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	142800	8782	0.007	61	0.45	3952	33	1581
5 to10	155400	9557	0.012	115	0.65	6212	61	2485
10 to 15	146580	9015	0.010	90	1.05	9465	48	3786
15 to 20	138180	8498	0.010	85	0.55	4674	45	1870
20 to 25	134400	8266	0.010	83	0.75	6199	44	2480
25 to 30	134820	8291	0.014	116	0.95	7877	62	3151
30 to 35	133980	8240	0.013	107	1.00	8240	57	3296
35 to 40	131460	8085	0.005	40	0.60	4851	21	1940
40 to 45	128240	7887	0.002	16	0.45	3549	8	1420
45 to 50	123480	7594	0.007	53	0.60	4556	28	1823
50 to 55	113400	6974	0.000	0	1.25	8718	0	3487
55 to 70	162120	9970		0		0	0	0
	1482740	91189	0.008	766	0.75	68293	406	27317
	1644860	101159						

Area # 5

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	192440	11835	0.000	0	0.50	5918	0	2367
5 to10	193120	11877	0.008	95	0.65	7720	50	3088
10 to 15	193970	11929	0.053	632	2.05	24455	335	9782
15 to 20	204850	12598	0.010	126	1.25	15748	67	6299
20 to 25	204850	12598	0.009	113	1.15	14488	60	5795
25 to 30	208590	12828	0.010	128	0.75	9621	68	3848
30 to 35	213350	13121	0.004	52	0.15	1968	28	787
35 to 40	217600	13382	0.003	40	0.25	3346	21	1338
40 to 45	221000	13592	0.005	68	0.35	4757	36	1903
45 to 50	219130	13476	0.018	243	0.40	5391	129	2156
50 to 55	196180	12065	0.009	109	0.25	3016	58	1207
55 to 60	190740	11731	0.006	70	0.75	8798	37	3519
60 to 65	171700	10560	0.006	63	0.45	4752	34	1901
65 to 70	165410	10173		0		0	0	0
70 to 75	72760	4475		0		0	0	0
	2627520	161592	0.011	1740	0.69	109977	922	43991
	2865690	176240						

Area # 6

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	139200	8561	0.009	77	0.75	6421	41	2568
5 to10	179250	11024	0.005	55	0.55	6063	29	2425
10 to 15	186000	11439	0.005	57	0.70	8007	30	3203
15 to 20	192600	11845	0.004	47	0.50	5922	25	2369
20 to 25	199950	12297	0.004	49	0.35	4304	26	1722
25 to 30	209100	12860	0.013	167	0.65	8359	89	3344
30 to 35	213900	13155	0.012	158	0.85	11182	84	4473
35 to 40	220800	13579	0.015	204	0.75	10184	108	4074
40 to 45	227850	14013	0.010	140	0.45	6306	74	2522
45 to 50	235200	14465	0.015	217	0.30	4339	115	1736
50 to 55	242250	14898	0.015	223	0.40	5959	118	2384
	2246100	138135	0.010	1395	0.57	77047	739	30819

Area # 7

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	59250	3644	0.005	18	0.45	1640	10	656
5 to10	86550	5323	0.010	53	0.60	3194	28	1277
10 to 15	121500	7472	0.012	90	0.75	5604	48	2242
15 to 20	149250	9179	0.006	55	0.50	4589	29	1836
20 to 25	175350	10784	0.006	65	0.55	5931	34	2372
25 to 30	214050	13164	0.012	158	0.40	5266	84	2106
30 to 35	218700	13450	0.003	40	0.30	4035	21	1614
35 to 40	224550	13810	0.005	69	0.35	4833	37	1933
40 to 45	227250	13976	0.001	14	0.35	4892	7	1957
	1476450	90802	0.007	562	0.47	39984	298	15994

Area # 8

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	100640	6189	0.015	93	0.90	5570	49	2228
5 to10	113900	7005	0.005	35	0.50	3502	19	1401
10 to 15	124270	7643	0.002	15	0.25	1911	8	764
15 to 20	134300	8259	0.002	17	0.40	3304	9	1322
20 to 25	149940	9221	0.007	65	0.35	3227	34	1291
25 to 30	171360	10539	0.009	95	0.15	1581	50	632
30 to 35	195330	12013	0.008	96	0.60	7208	51	2883
35 to 40	229500	14114	0.008	113	0.40	5646	60	2258
	1219240	74983	0.007	528	0.44	31949	280	12780

Area # 9

Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	48750	2998	0.007	21	0.40	1199	11	480
5 to10	67500	4151	0.010	42	0.40	1661	22	664
10 to 15	86250	5304	0.008	42	0.70	3713	22	1485
15 to 20	91250	5612	0.007	39	0.65	3648	21	1459
20 to 25	97500	5996	0.014	84	0.55	3298	44	1319
25 to 30	105000	6458	0.011	71	0.50	3229	38	1292
30 to 35	87000	5351	0.011	59	0.75	4013	31	1605
	583250	35870	0.010	358	0.56	20760	190	8304

Area # 10

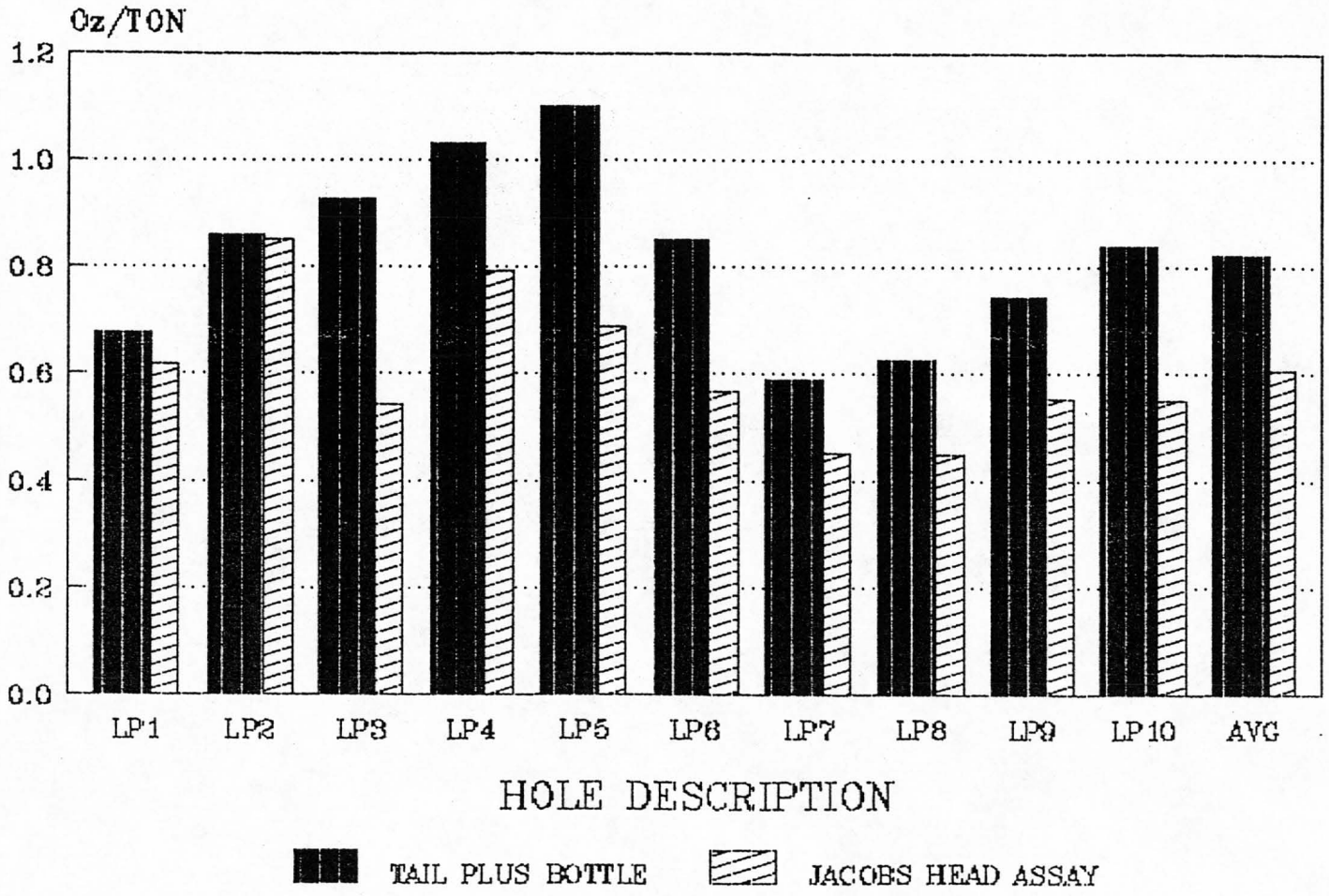
Depth	Volume Cu. Ft	Amt. of Aggl. Tons	Gold oz/ton	Total Gold oz	Silver oz/ton	Total Silver oz	Rec. Gold oz	Rec. Silver oz
0 to 5	434000	26691	0.008	214	0.35	9342	113	3737
5 to10	434000	26691	0.014	374	0.60	16015	198	6406
10 to 15	434000	26691	0.012	320	0.55	14680	170	5872
15 to 20	418500	25738	0.017	438	0.90	23164	232	9266
20 to 25	372000	22878	0.018	412	0.55	12583	218	5033
25 to 30	310000	19065	0.015	286	0.55	10486	152	4194
30 to 35	264000	16236	0.017	276	0.40	6494	146	2598
35 to 45	200000	12300		0		0	0	0
	2666500	163990	0.014	2319	0.56	92764	1229	37105
	2866500	176290						

Comparative Assays

	Gold					Silver				
Sample	PBR	AA	Jacobs	Jacobs Dups	Skyline	PBR	AA	Jacobs	Jacobs Dup	Skyline
LP-1										
0 to 5	0.005		0.010	0.013		0.32		0.45	0.60	
5 to10	0.005		0.010			0.17		0.40		
10 to 15	0.017		0.033	0.025		0.94		0.90	0.95	
	0.009		**0.018**	**0.019**		**0.48**		**0.58**	**0.78**	
LP-2										
0 to 5	0.012		0.007			1.18		0.70		
5 to10	0.007		0.013	0.020		0.74		0.65	0.70	
10 to 15	0.010		0.044			0.72		2.05		
15 to 20	0.030		0.016	0.015		0.76		0.85	0.95	
20 to 25	0.027		0.009			0.47		0.50		
25 to 30	0.020		0.018	0.021		0.42		0.50	0.55	
30 to 35	0.014		0.009			0.51		0.60		
	0.017		**0.017**	**0.019**		**0.69**		**0.84**	**0.73**	
Lp-3										
0 to 5	0.010		0.013	0.013	0.005	0.45		0.45	0.50	0.44
5 to10	0.010		0.016		0.005	0.45		0.60		0.51
10 to 15	0.005		0.015	0.019	0.010	0.85		1.05	0.95	0.84
15 to 20	0.005		0.008		<0.005	0.85		0.65		0.51
20 to 25	0.010		0.010	0.013	<0.005	0.57		0.80	0.80	0.64
25 to 30	0.010		0.009		<0.005	0.57		0.65		0.44
30 to 35	0.020		0.008	0.011	<0.005	0.80		0.40	0.45	0.41
35 to 40	0.020		0.009		0.005	0.80		0.60		0.58
40 to 45	0.015		0.011	0.007	<0.005	0.49		0.30	0.35	0.29
45 to 48	0.094		0.012		0.010	0.76		0.35		0.44
48 to 50	0.020		0.014	0.011		1.02		0.80	0.75	
50 to 55	0.022		0.009			1.06		0.75		
55 to 60	0.005		0.007	0.006		0.47		0.45	0.45	
60 to 65	0.007		0.002			0.44		0.30		
65 to 65.5	0.020		0.006	0.004		0.64		0.40	0.35	
	0.018		**0.010**	**0.011**	**0.007**	**0.68**		**0.57**	**0.58**	**0.51**
LP-4										
0 to 5	0.015		0.007		0.010	0.74		0.45		0.54
5 to10	0.015		0.012	0.011	0.010	0.74		0.65	0.65	0.60
10 to 15	0.010		0.010		0.010	0.54		1.05		0.88
15 to 20	0.010		0.010	0.012	0.010	0.54		0.55	0.80	0.76
20 to 25	0.015		0.010		0.010	1.00		0.75		0.70
25 to 30	0.015		0.014	0.019	0.010	1.00		0.95	0.95	0.88
30 to 35	0.020		0.013		0.015	0.76		1.00		0.82
35 to 40	0.020		0.005	0.006	0.005	0.76		0.60	0.55	0.48
40 to 45	0.020		0.002		0.010	1.19		0.45		0.45
45 to 50	0.020		0.007	0.010	0.005	1.19		0.60	0.50	0.38
50 to 54	0.030		tr	tr	0.010	1.21		1.25		1.28
	0.017		**0.009**	**0.012**	**0.010**	**0.88**		**0.75**	**0.69**	**0.71**
LP-5										
0 to 5	0.007		tr	tr		0.68		0.50	0.60	
5 to10	0.015		0.008			1.60		0.65		
10 to 15	0.020		0.053	0.046		1.21		2.05	2.10	
15 to 20	0.010		0.010			1.64		1.25		
20 to 25	0.020		0.009	0.010		1.50		1.15	1.10	
25 to 30	0.007		0.010			0.69		0.75		
30 to 35	0.005		0.004	0.004		0.48		0.15	0.05	
35 to 40	0.005		0.003			0.43		0.25		
40 to 45	0.005		0.005	0.003		0.54		0.35	0.35	
45 to 50	0.005		0.018			0.46		0.40		
50 to 55	0.005		0.009	0.007		0.43		0.25	0.35	
55 to 60	0.020		0.006			1.03		0.75		
60 to 65	0.012		0.006	0.005		0.35		0.45	0.35	
	0.010		**0.012**	**0.013**		**0.85**		**0.69**	**0.70**	

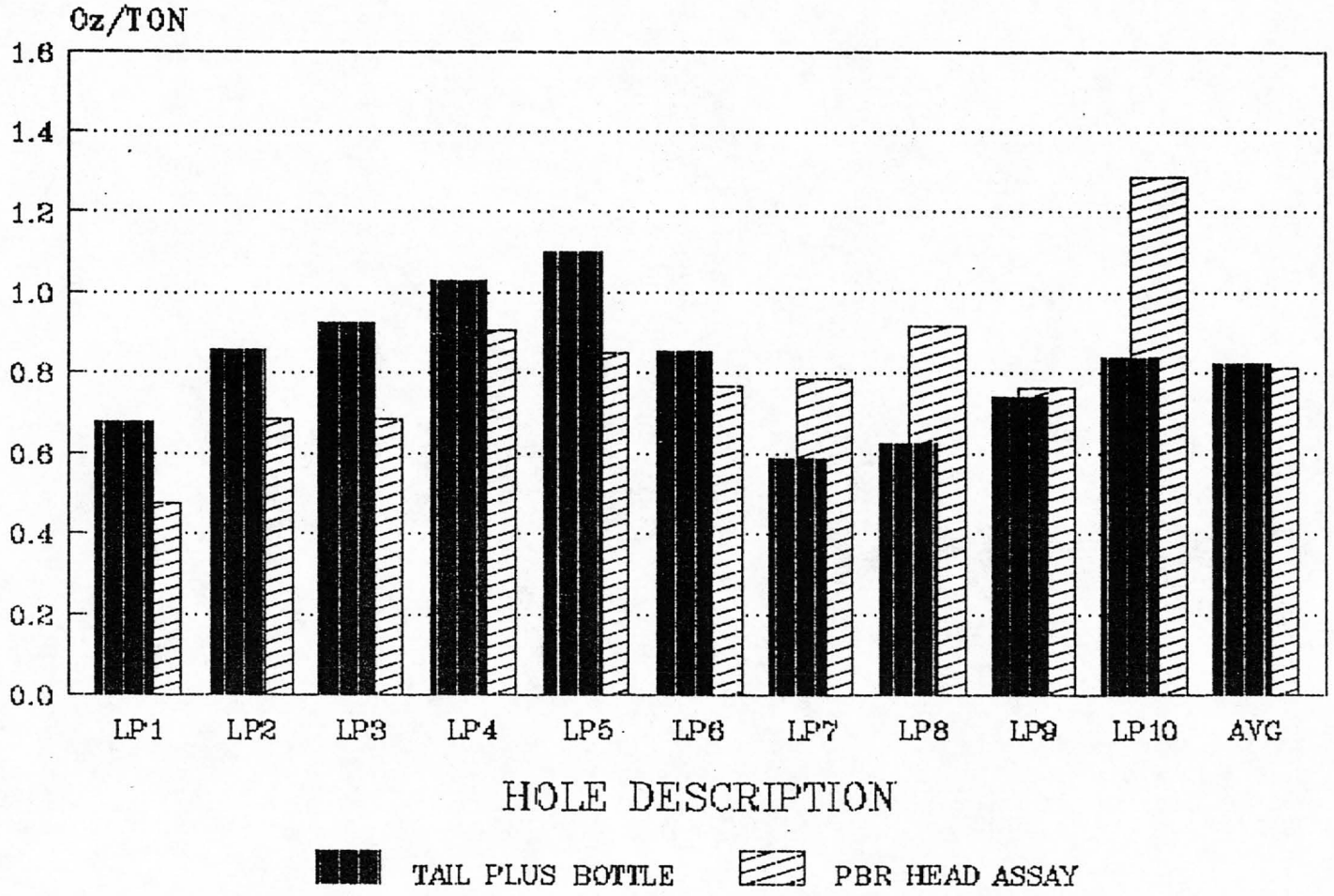
METALURGICAL BALLANCE Ag

TAIL ASSAY/RECOVERY vs HEAD ASSAY



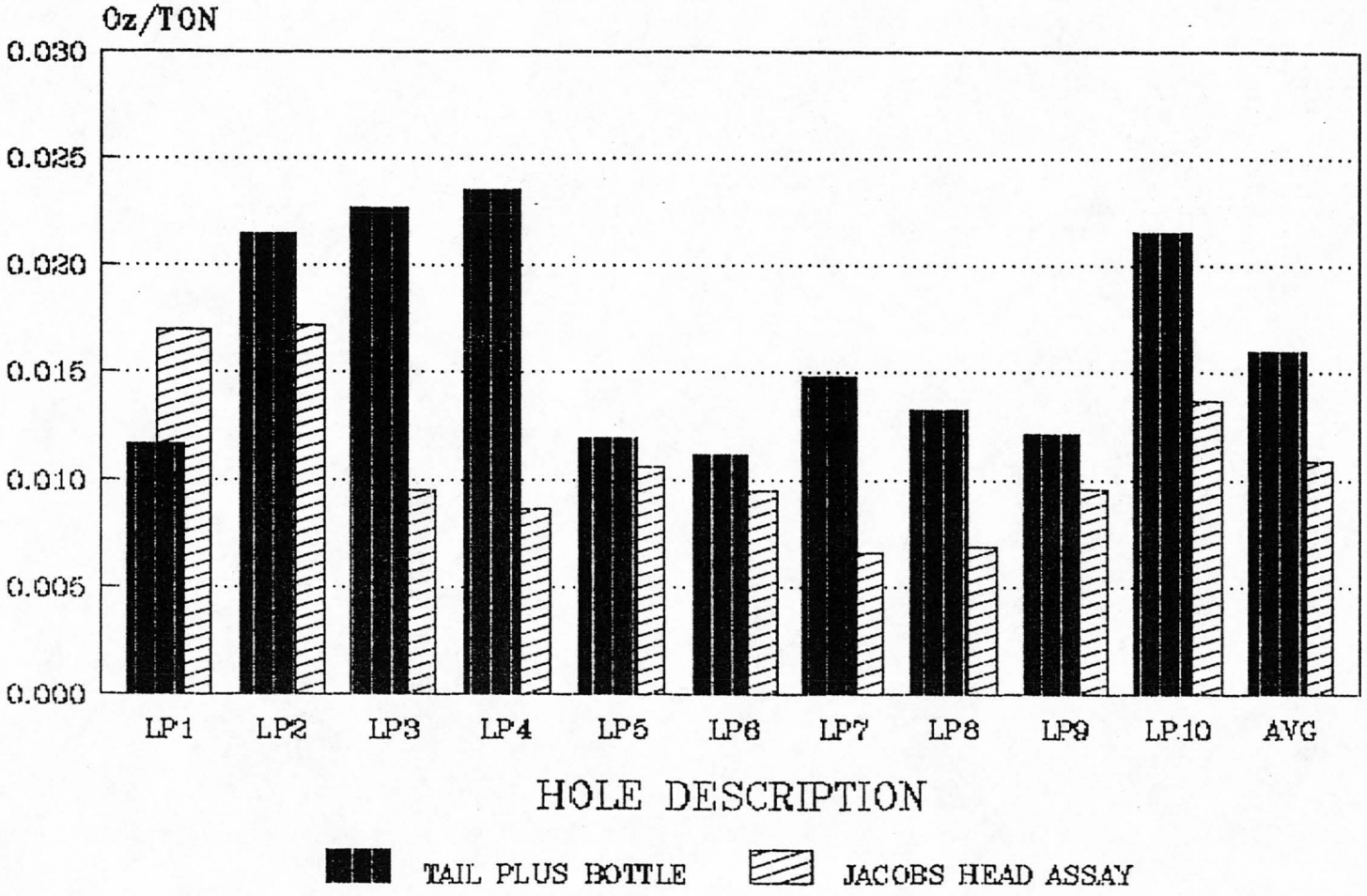
METALURGICAL BALLANCE Ag

TAIL ASSAY/RECOVERY vs HEAD ASSAY



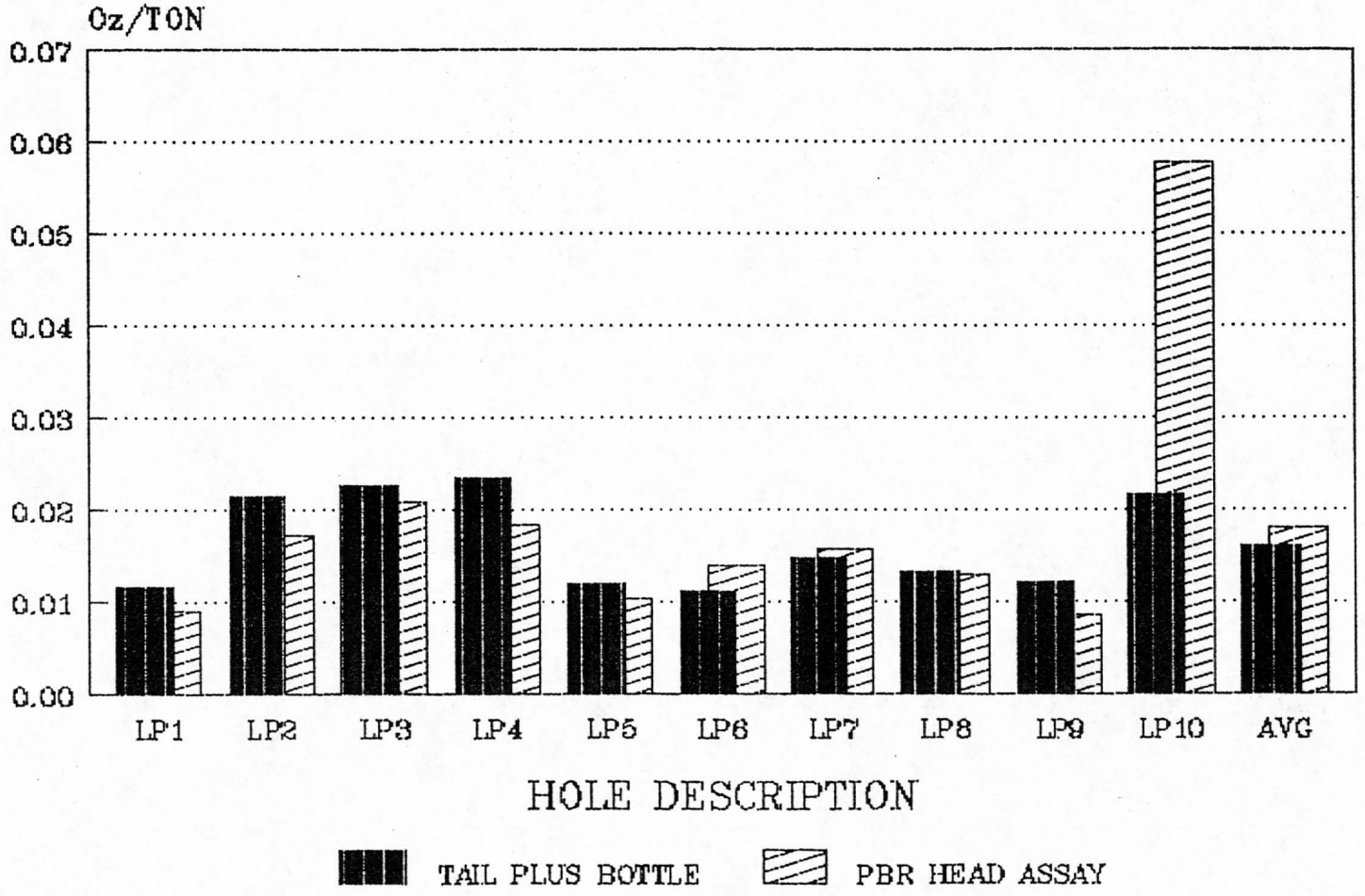
METALURGICAL BALLANCE Au

TAIL ASSAY/RECOVERY vs HEAD ASSAY



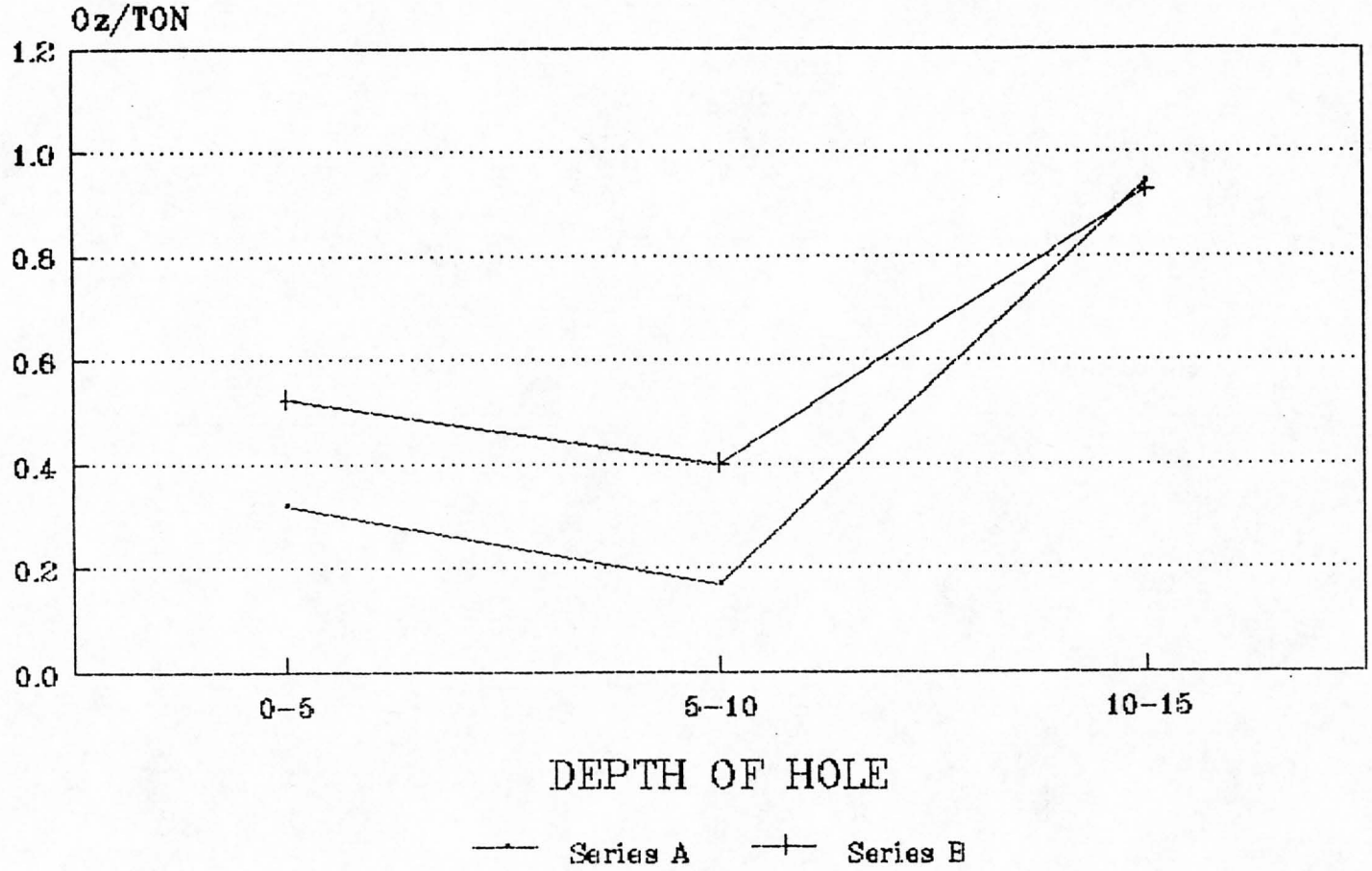
METALURGICAL BALLANCE Au

TAIL ASSAY/RECOVERY vs HEAD ASSAY



PBR ASSAYS

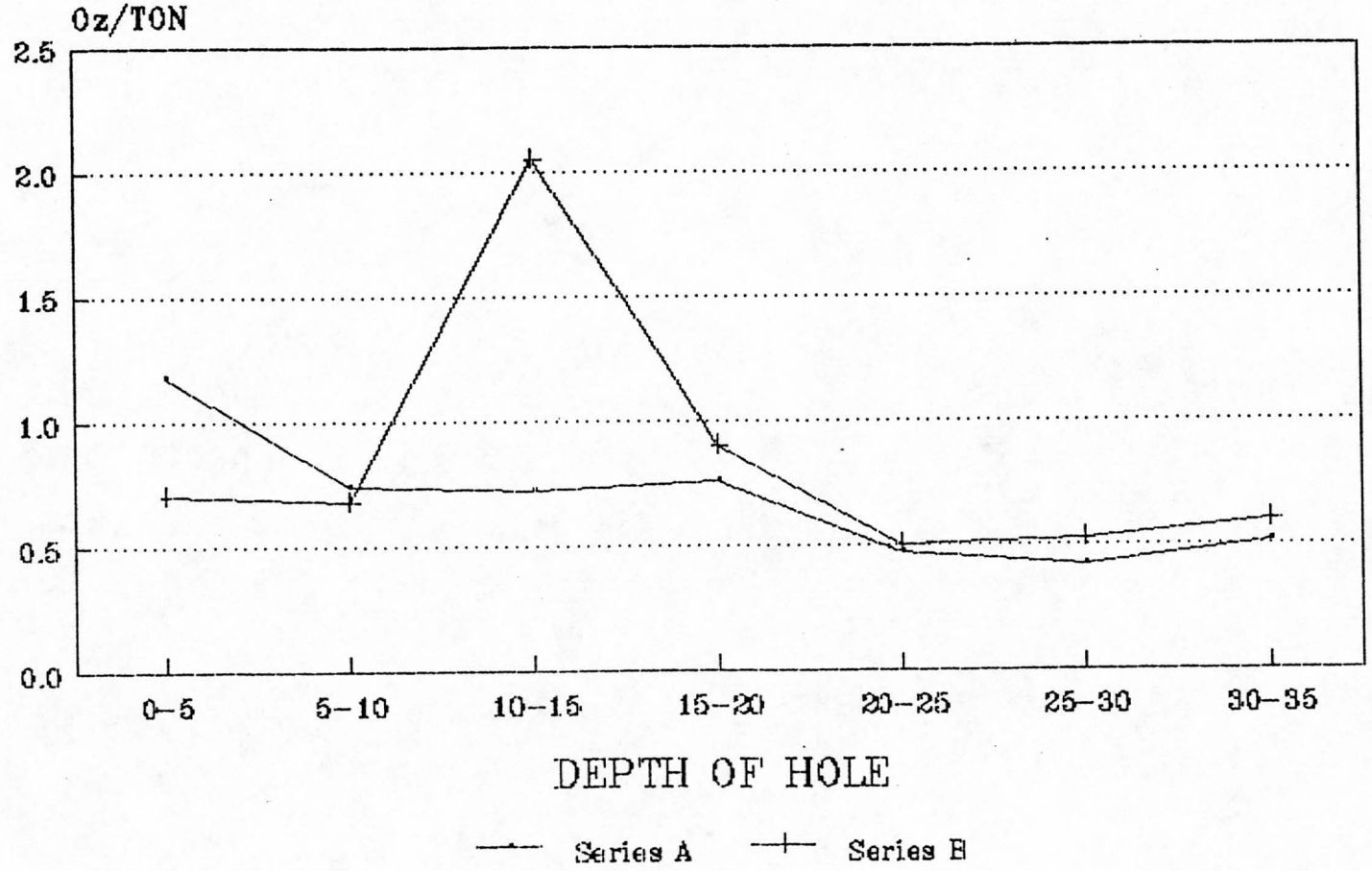
LP #1 (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

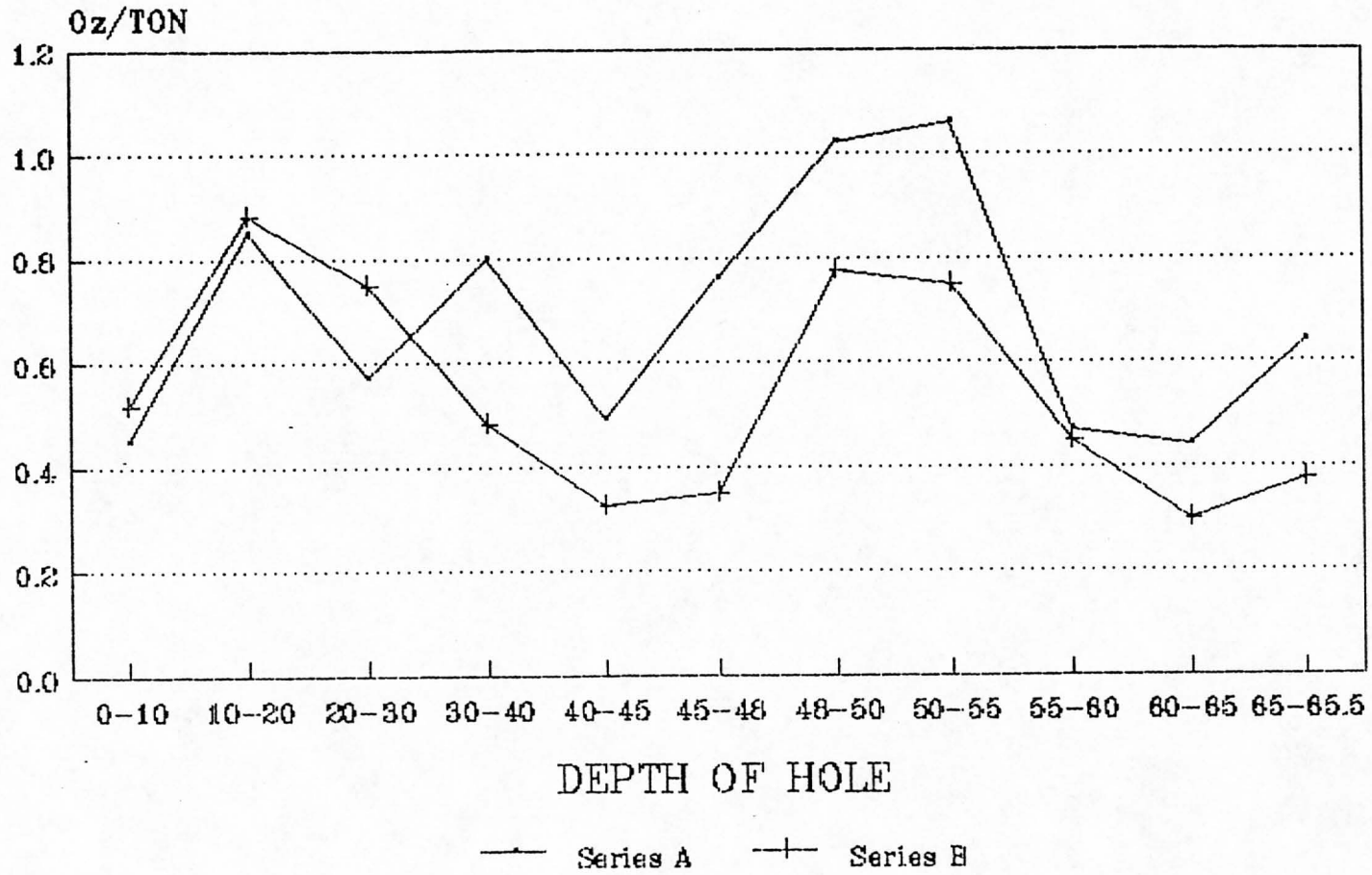
LP #2 (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

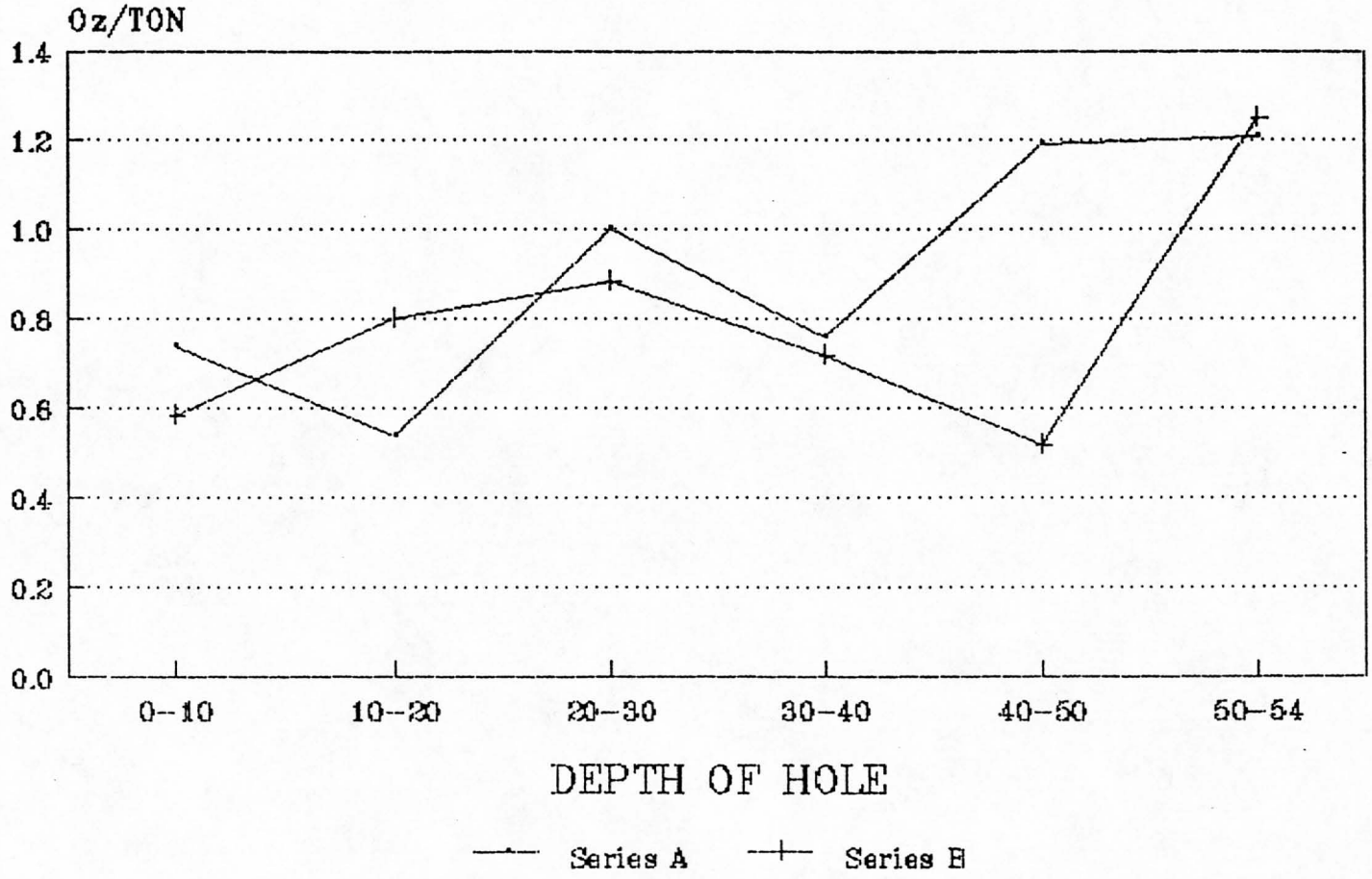
LP #3 (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

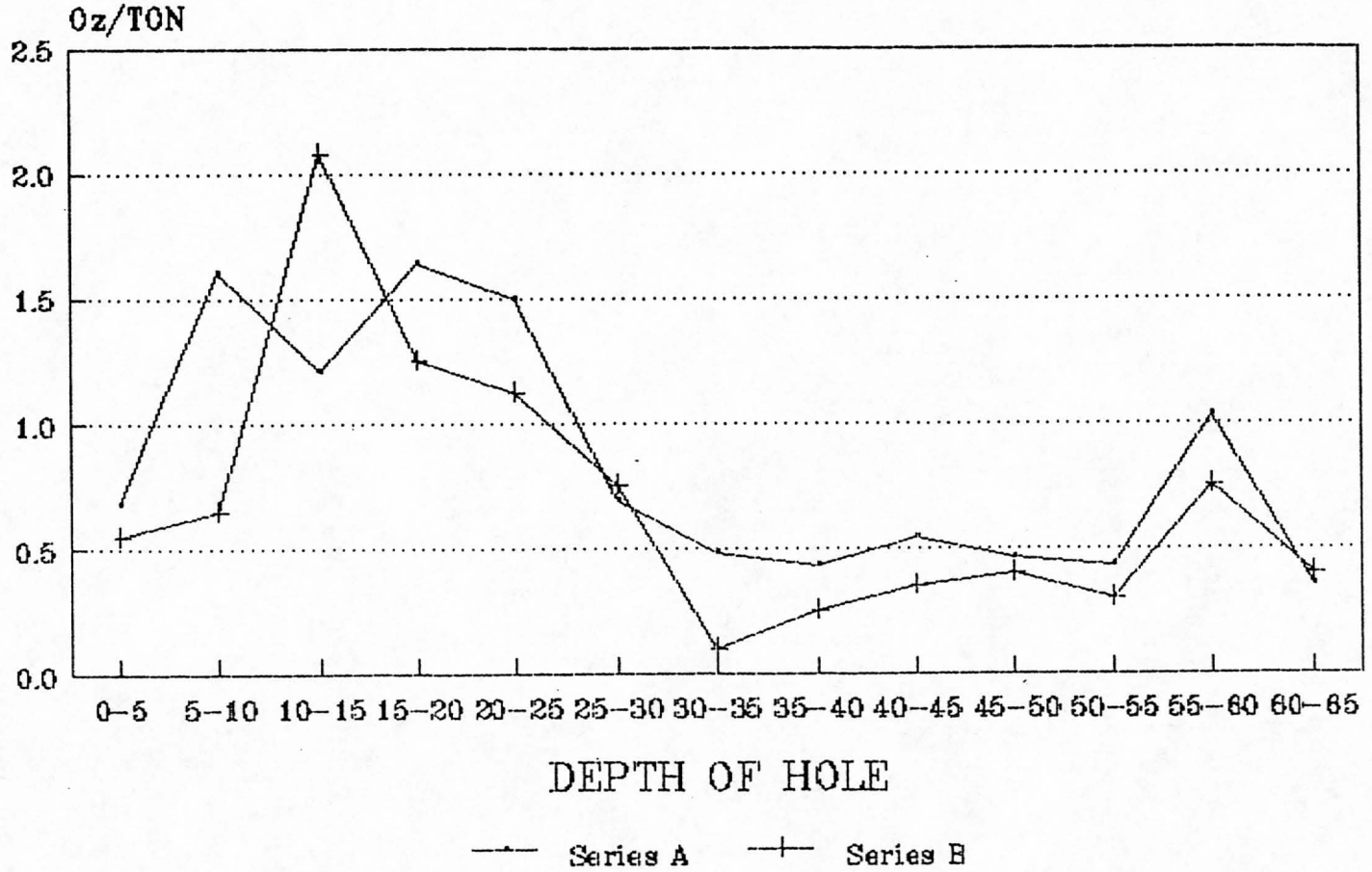
LP #4 (Ag)



SERIES A = PEIR / SERIES B = JACOBS

PBR ASSAYS

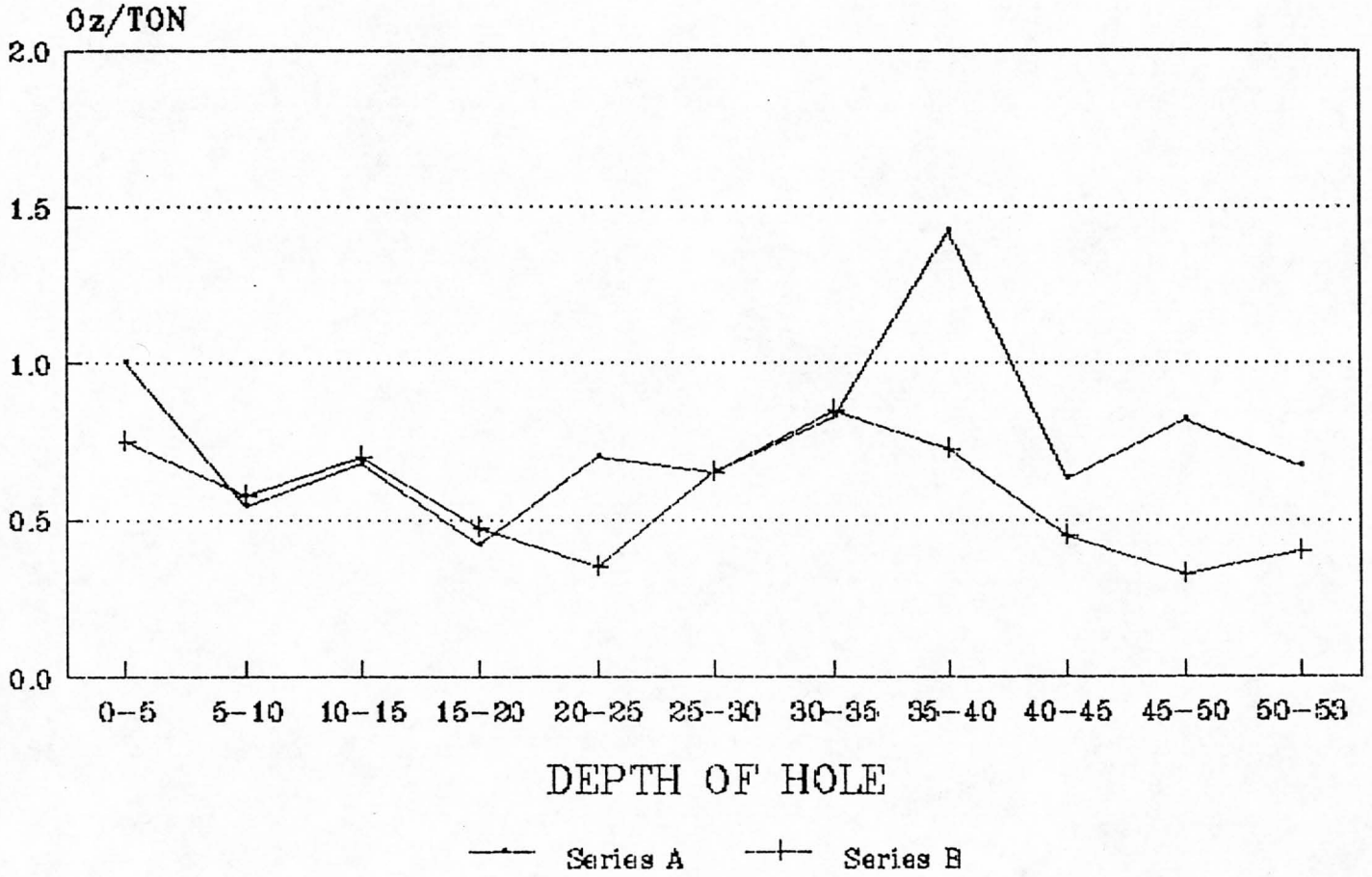
LP #5 (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

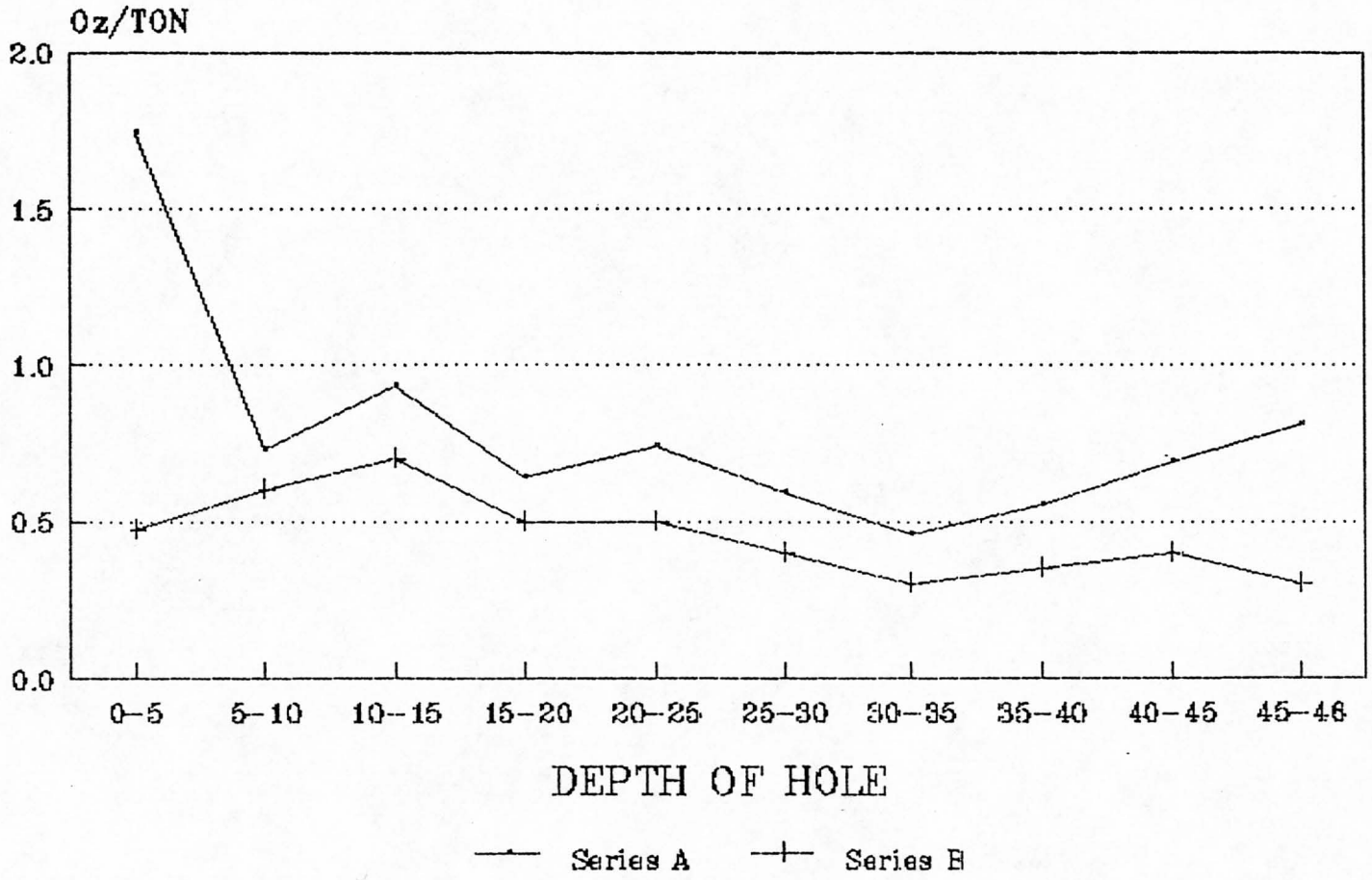
LP #6 (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

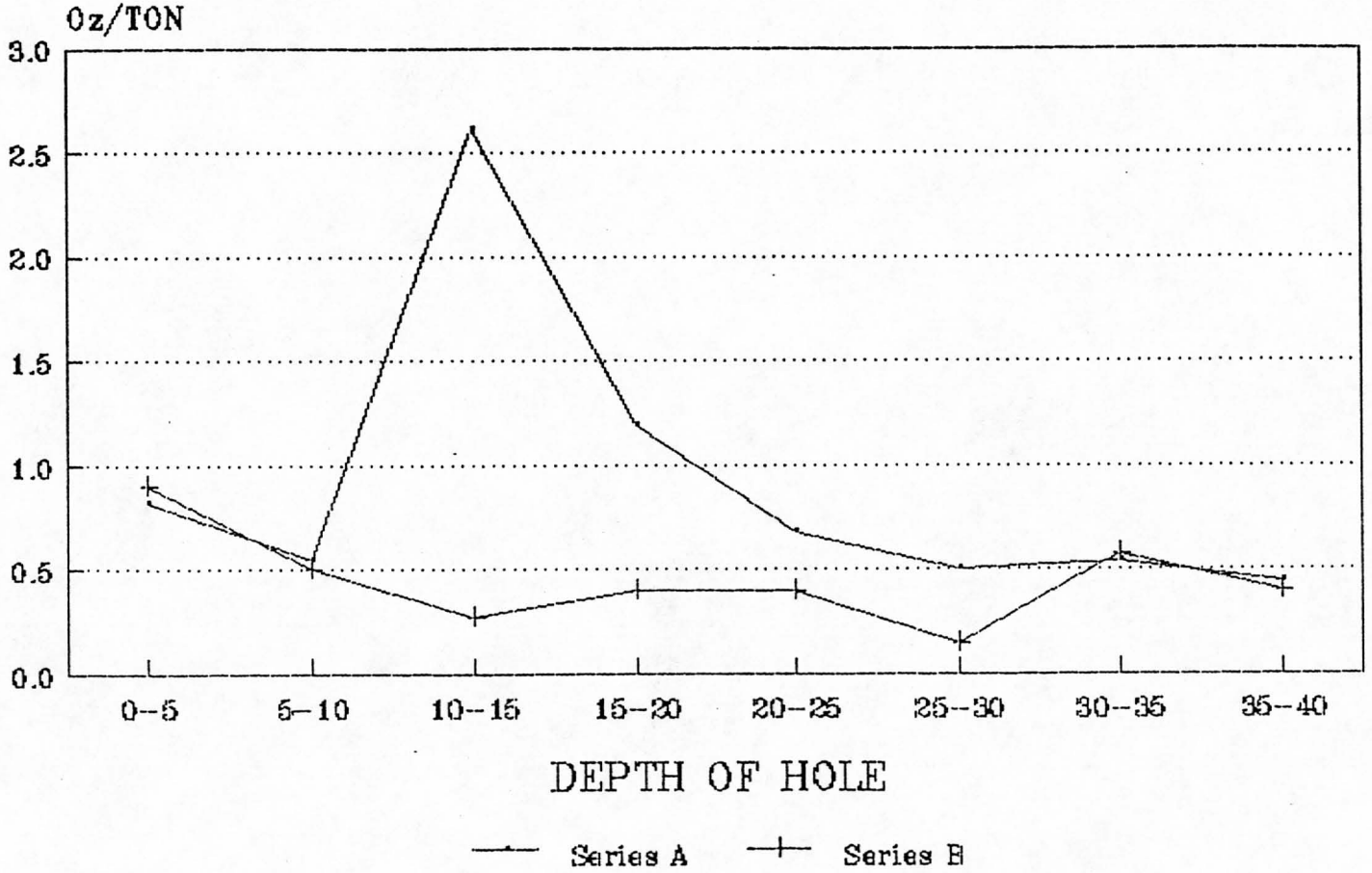
LP #7 (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

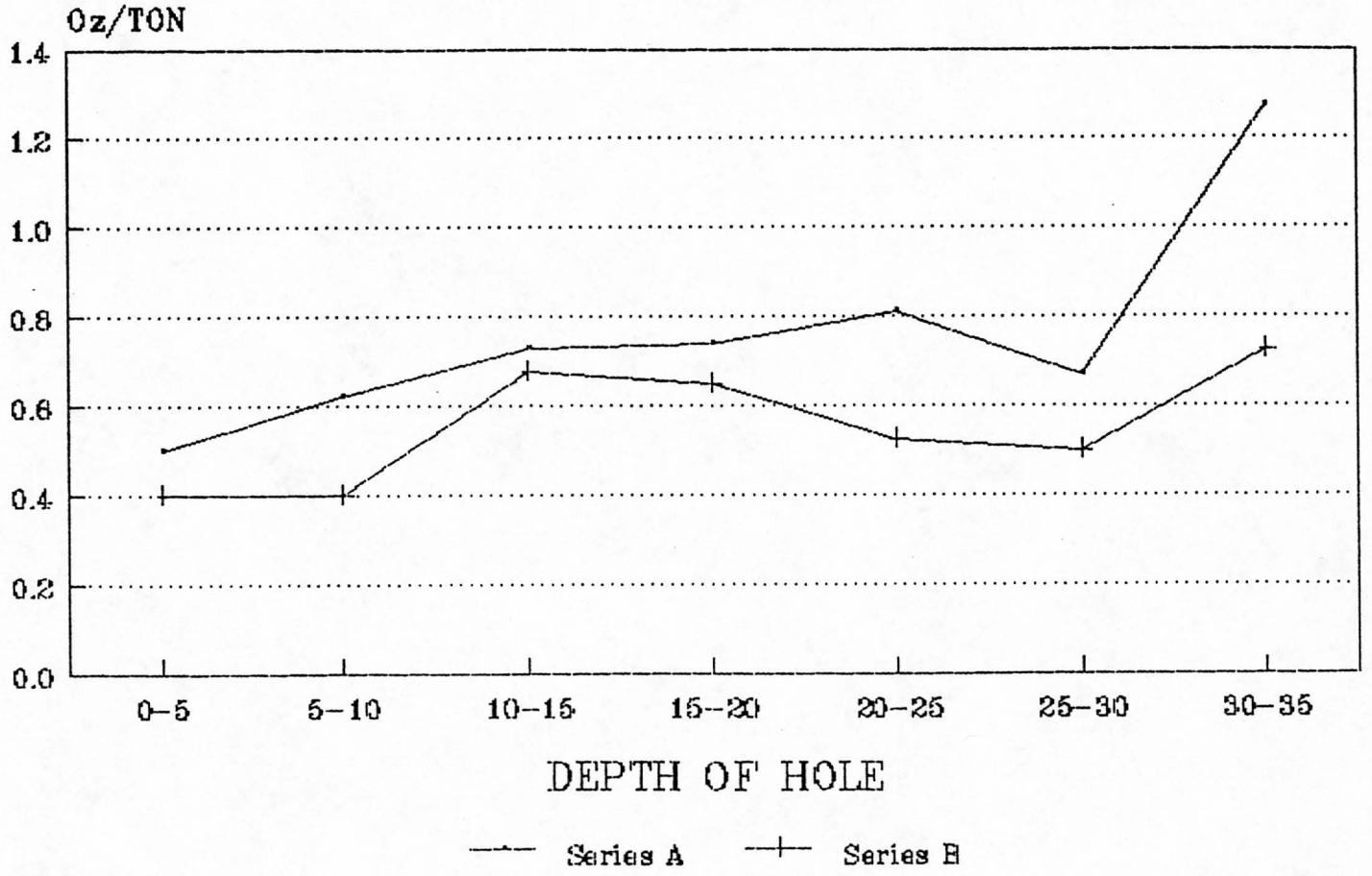
LP #8 (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

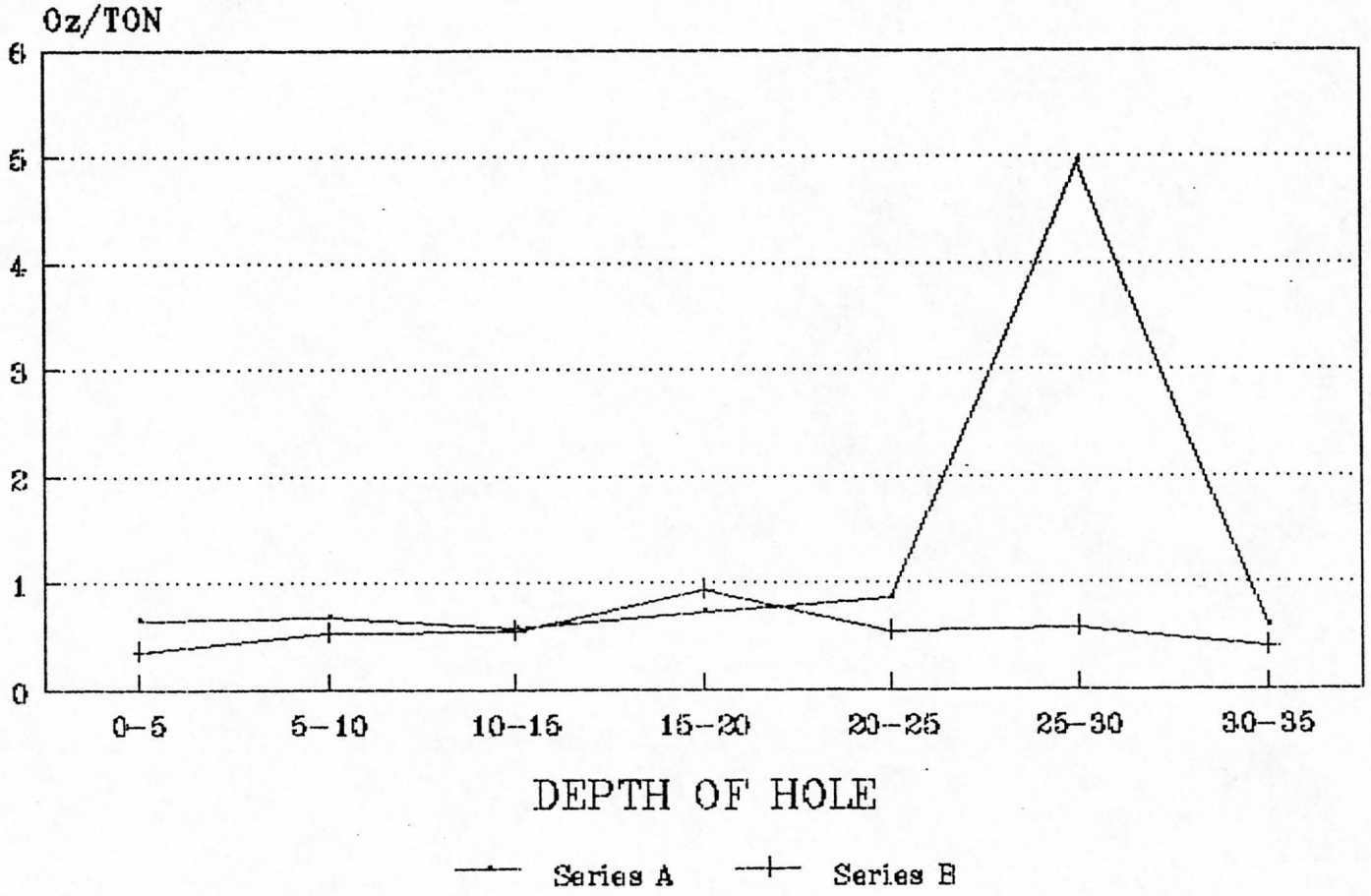
LP #9 (Ag)



SERIES A = PBR / SERIES B = JACOBS

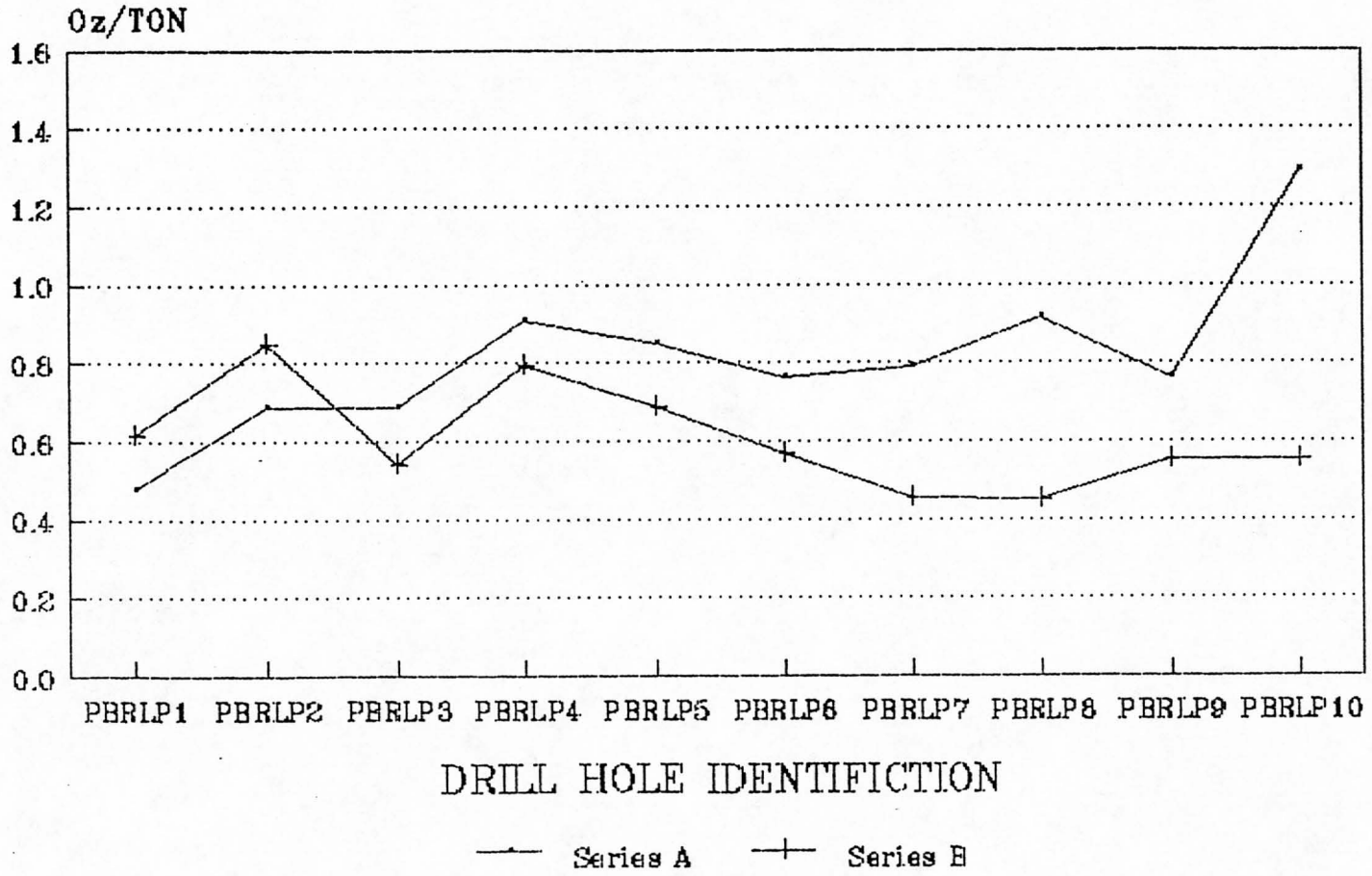
PBR ASSAYS

LP #10 (Ag)



SERIES A = PBR / SERIES B = JACOBS

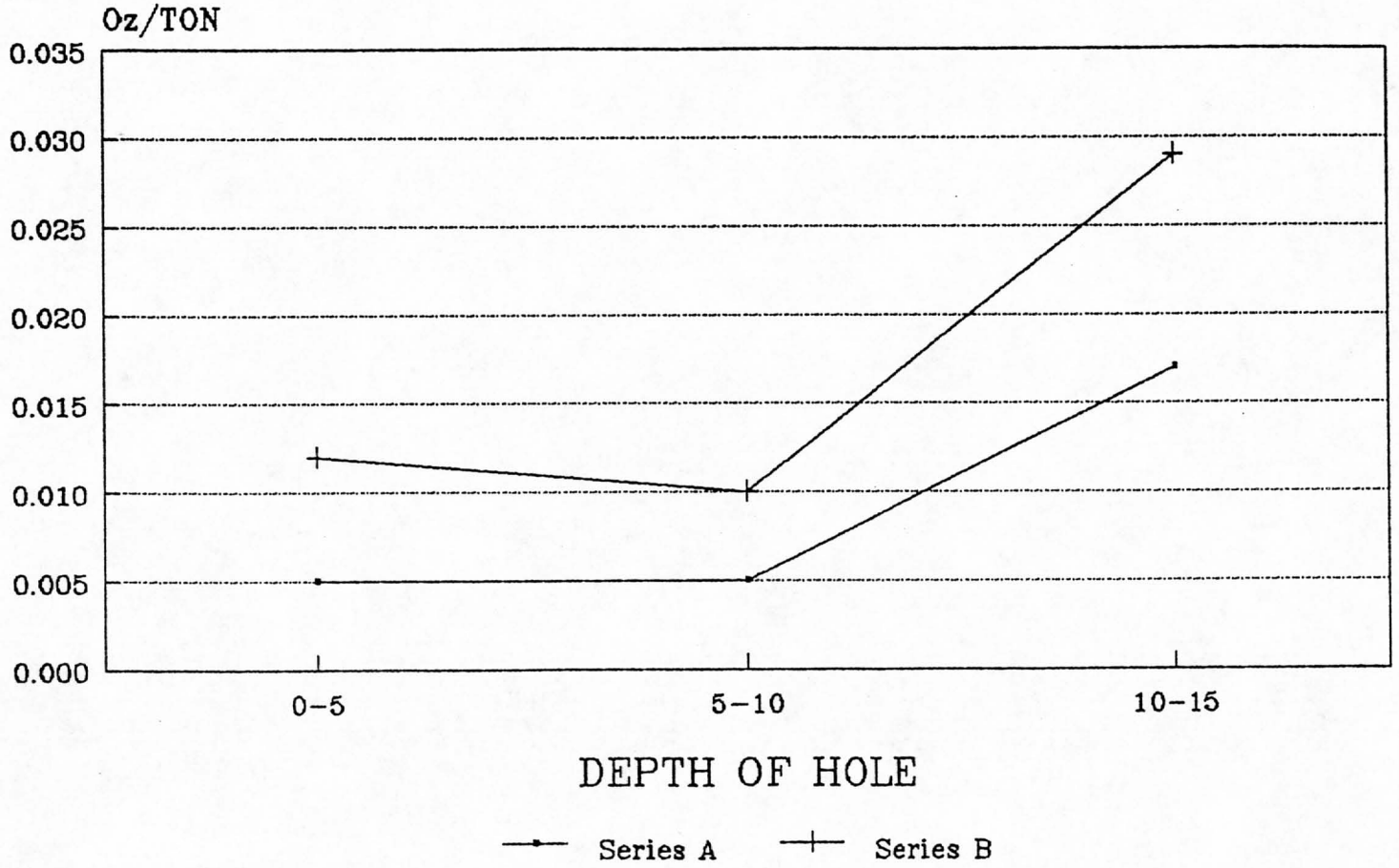
PBR ASSAYS
AVERAGE BY HOLE (Ag)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

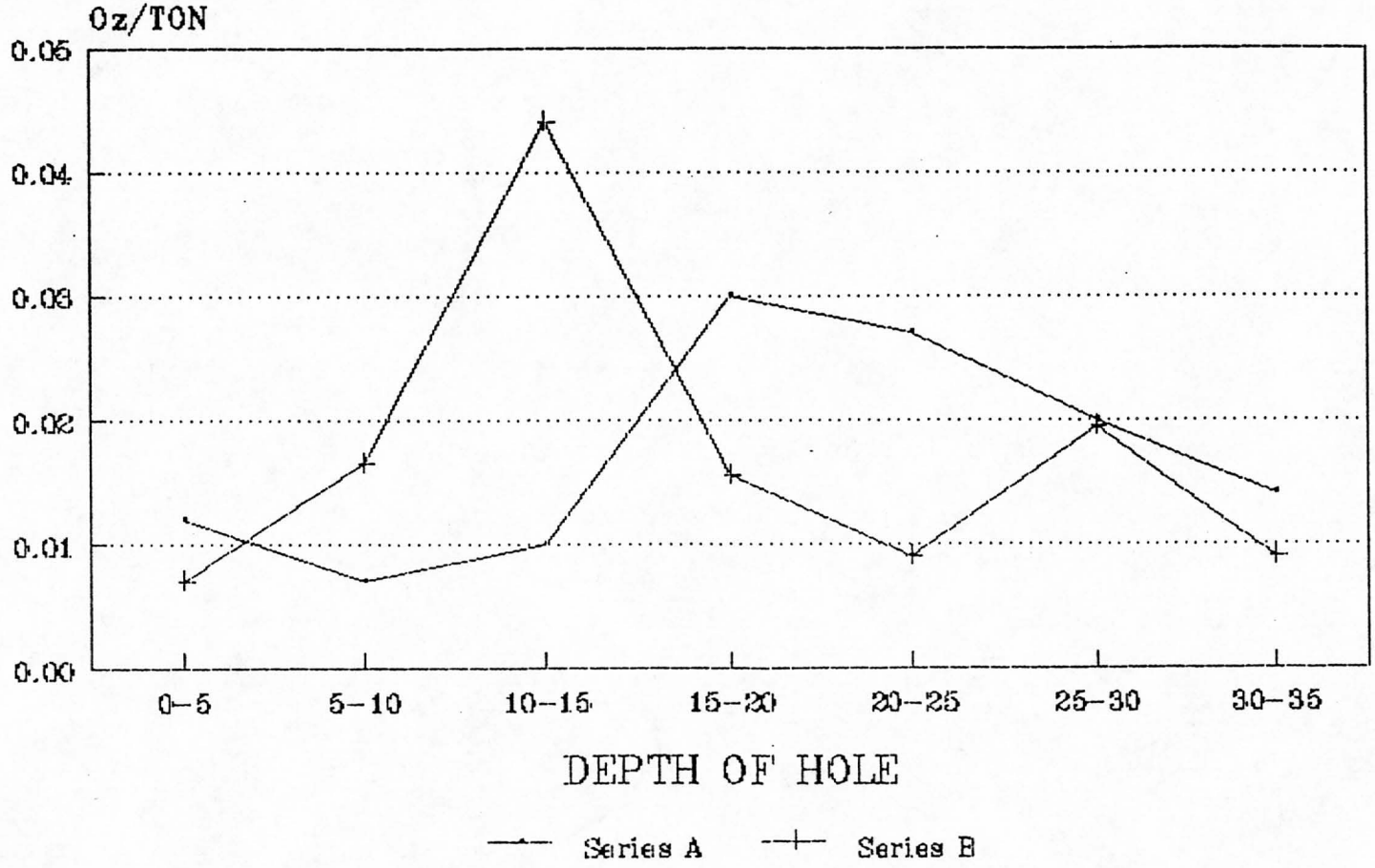
LP #1 (Au)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

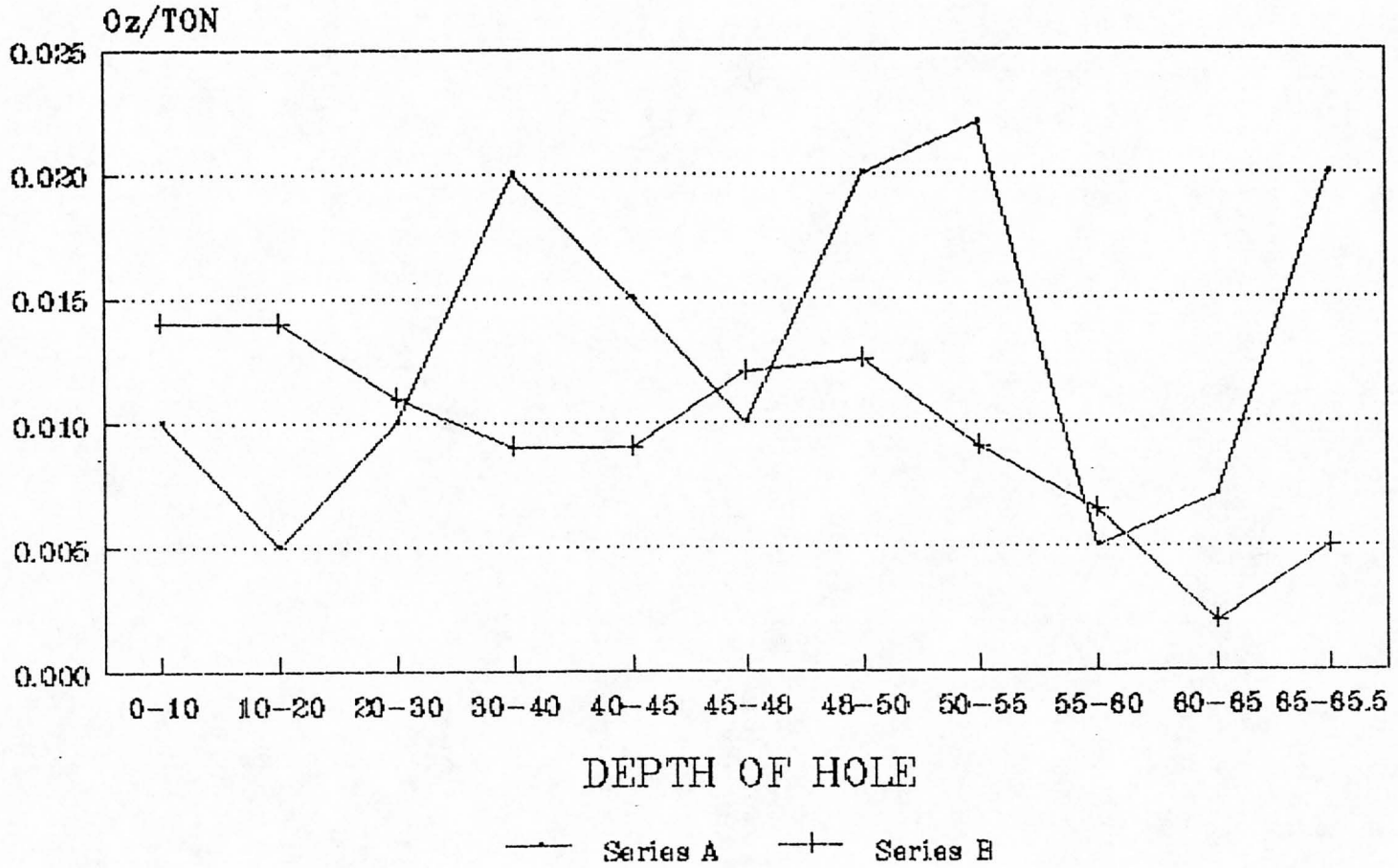
LP #2 (Au)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

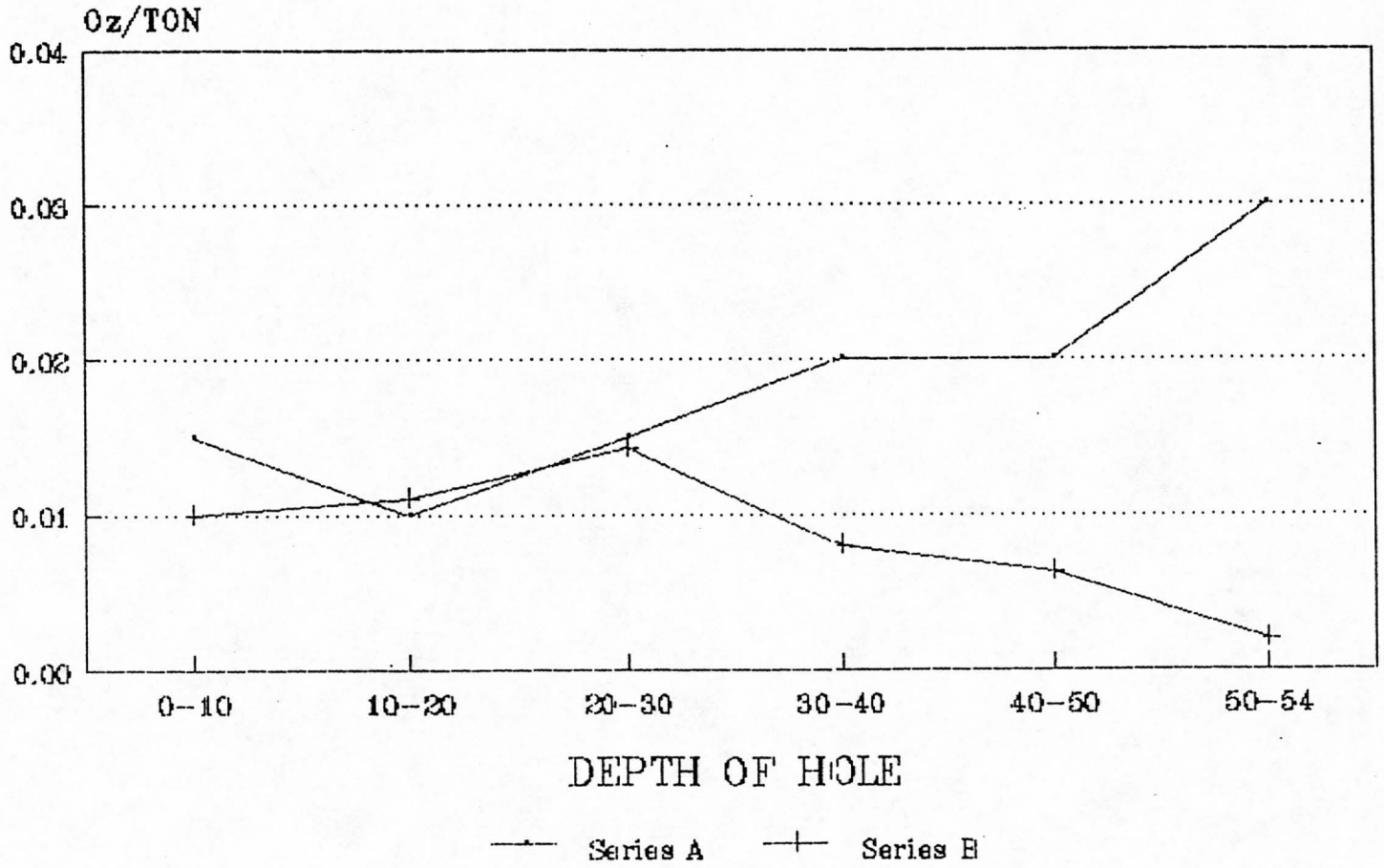
LP #3 (Au)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

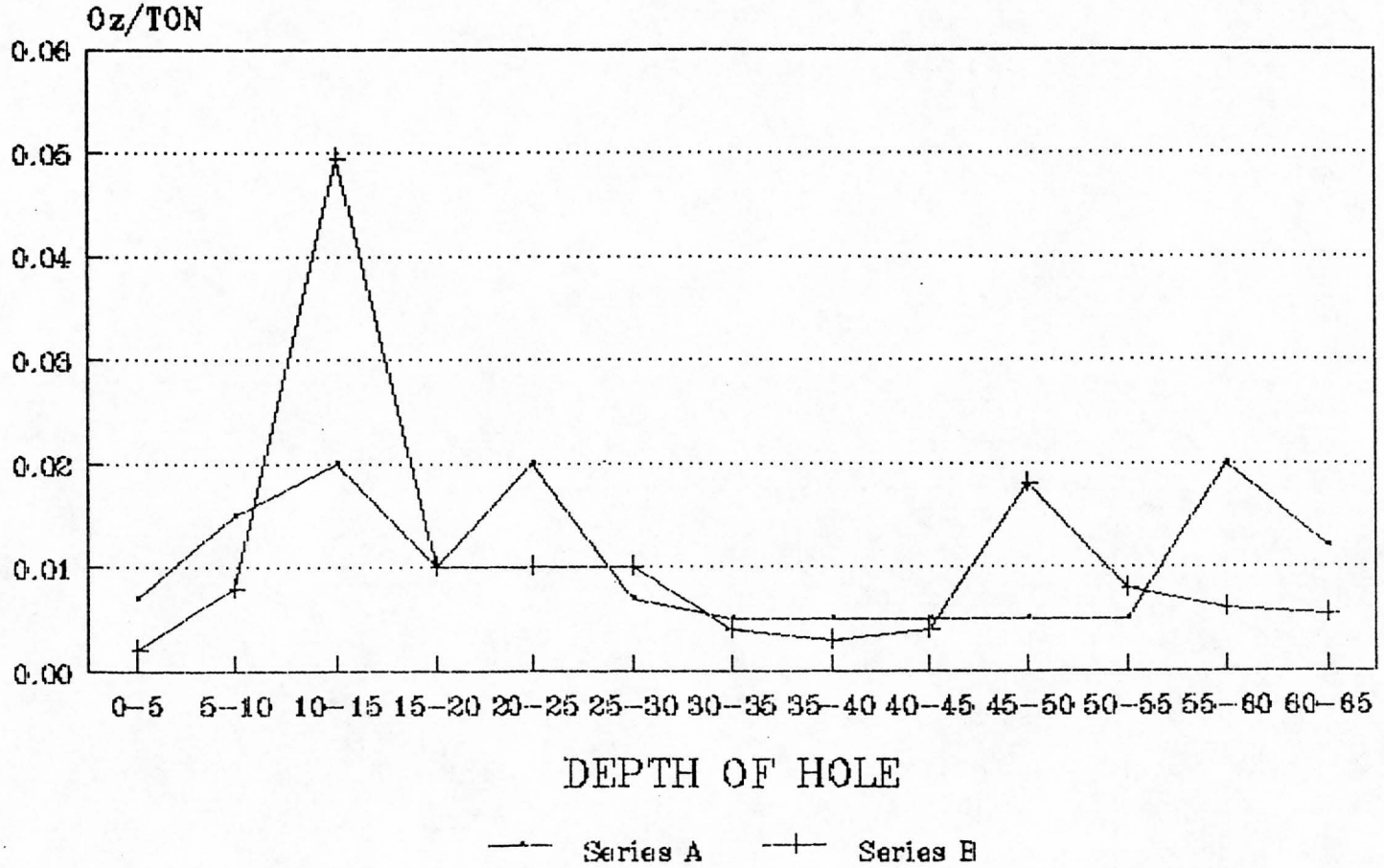
LP #4 (Au)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

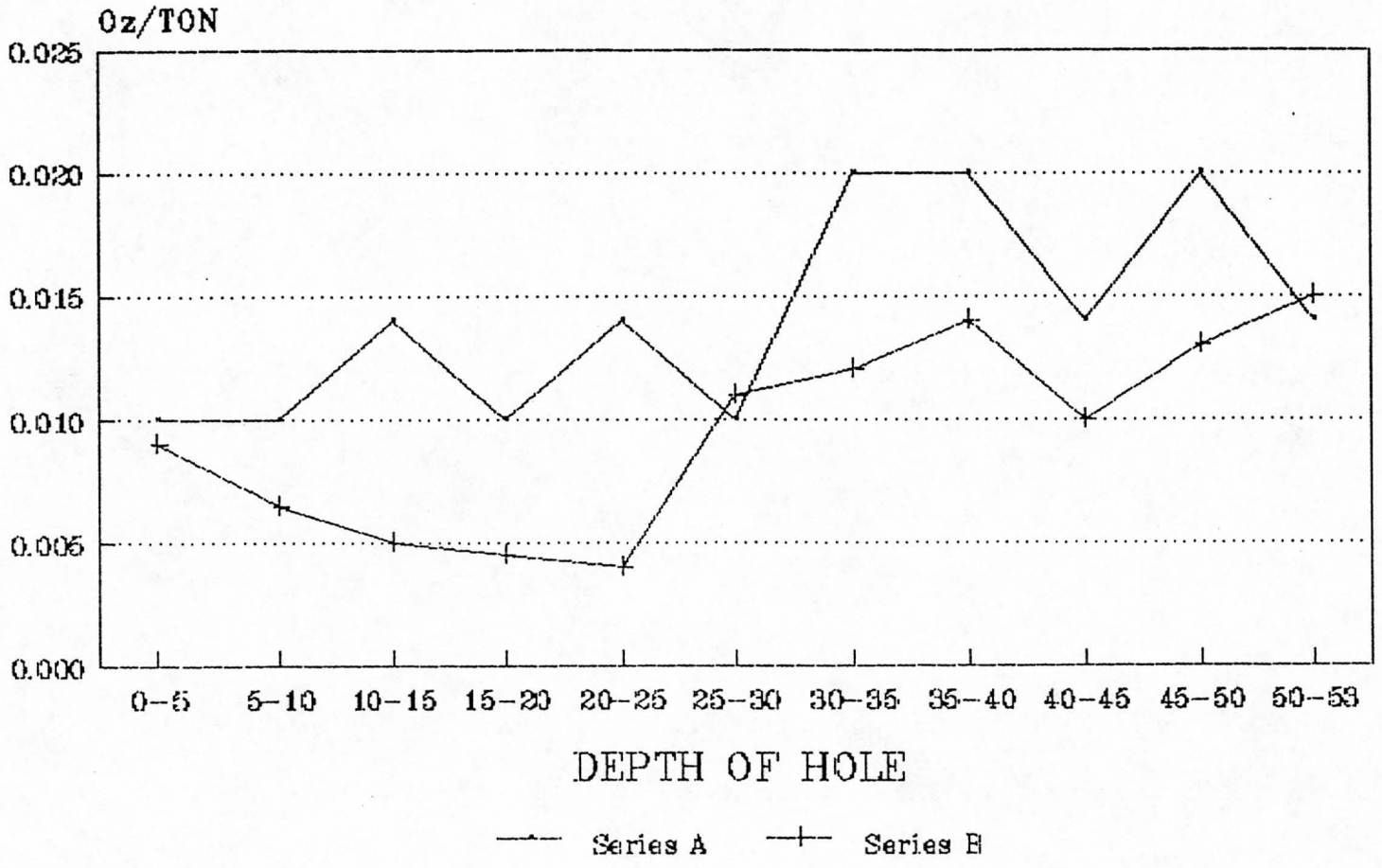
LP #5 (Au)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

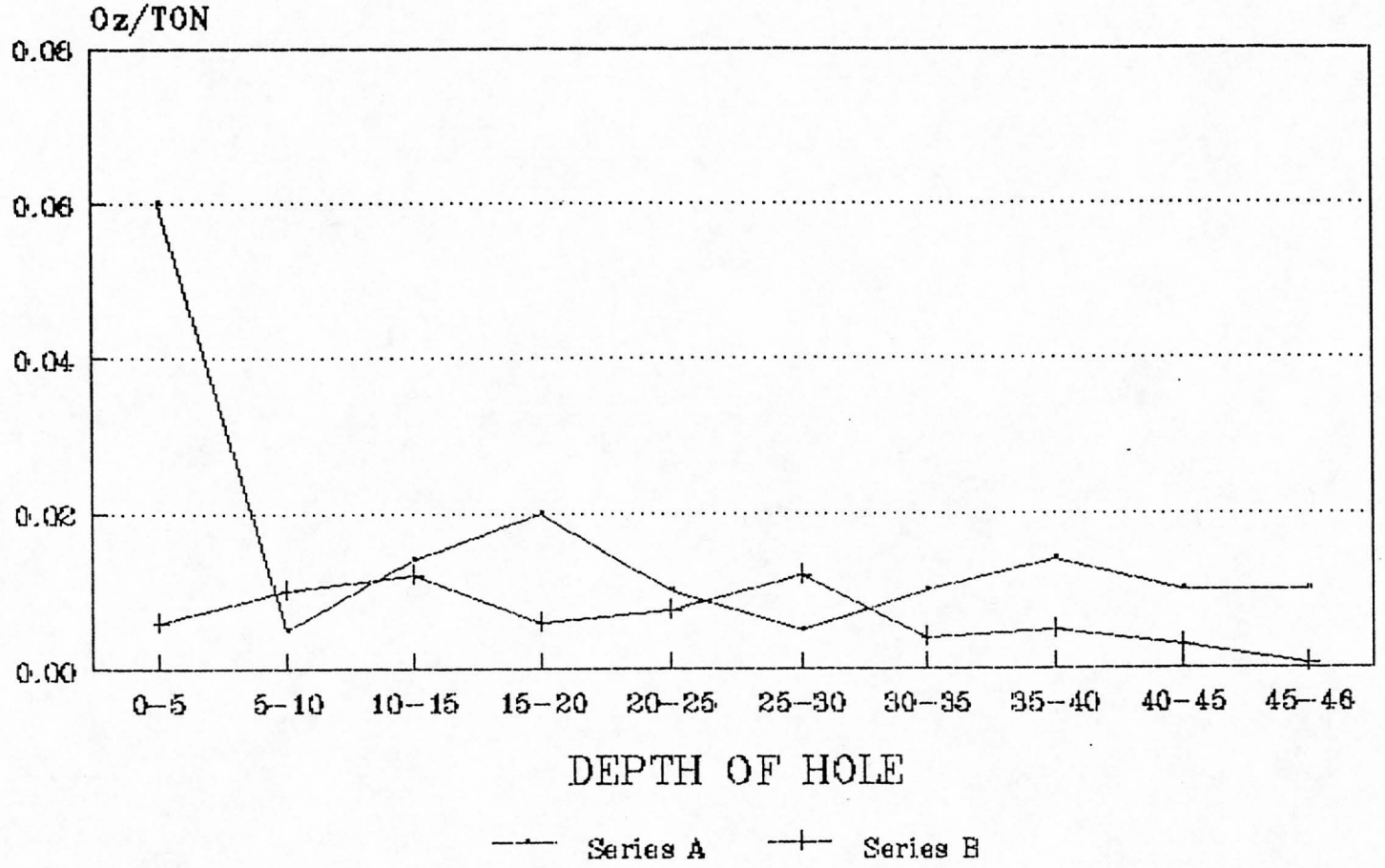
LP #6 (Au)



SERIES A = PBR ,/ SERIES B = JACOBS

PBR ASSAYS

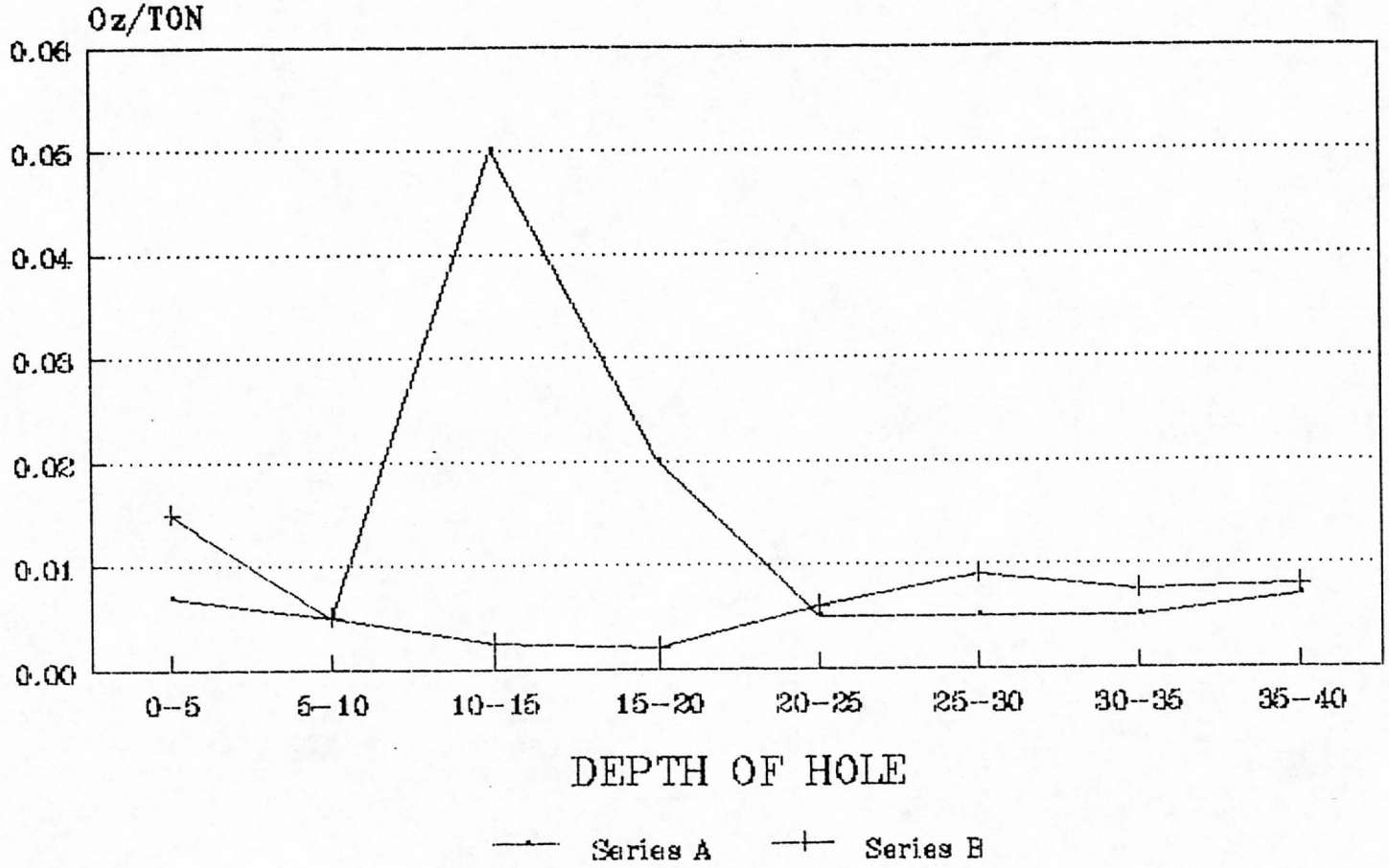
LP #7 (Au)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

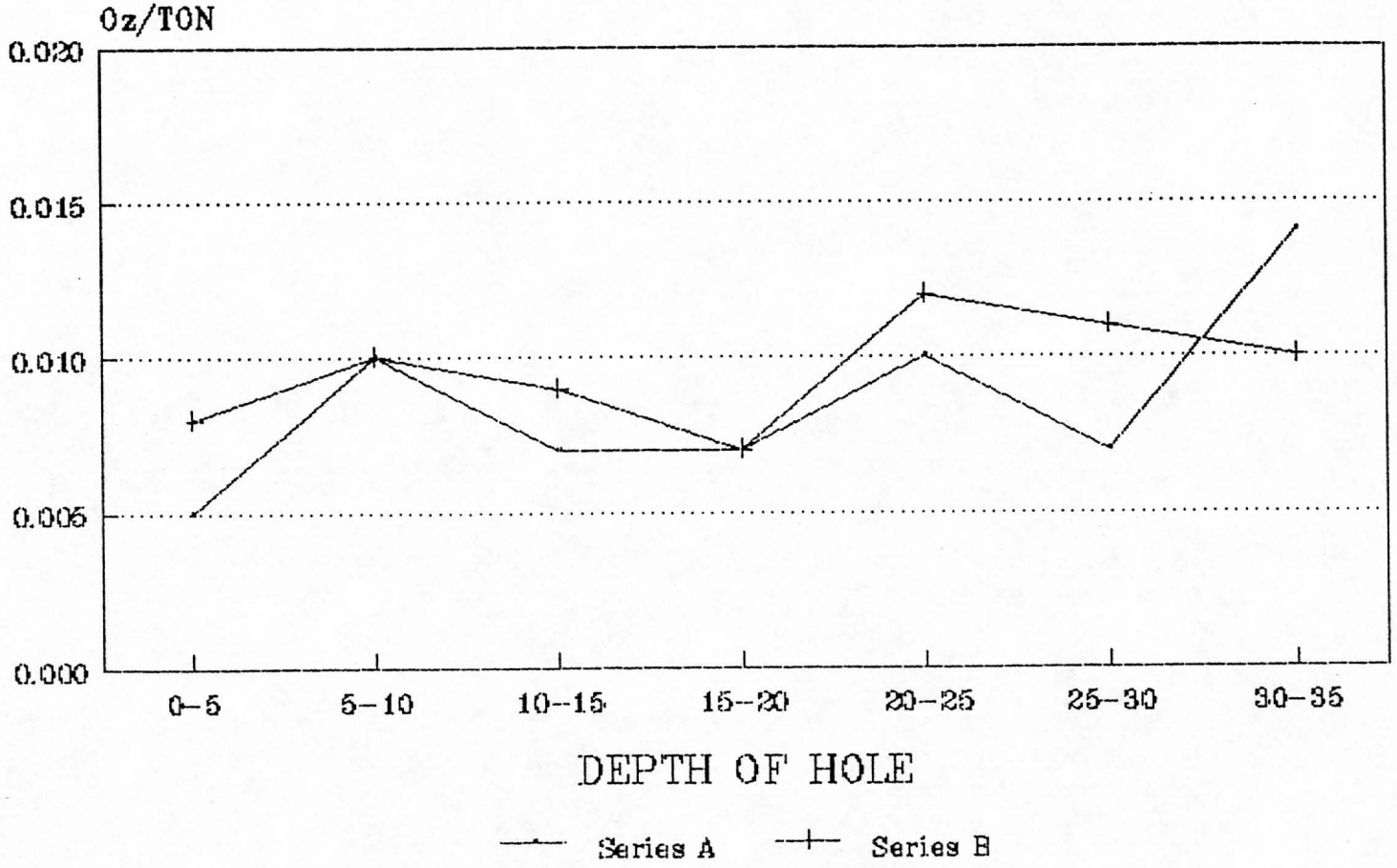
LP #8 (Au)



SERIES A = PBR / SERIES B = JACOBS

PBR ASSAYS

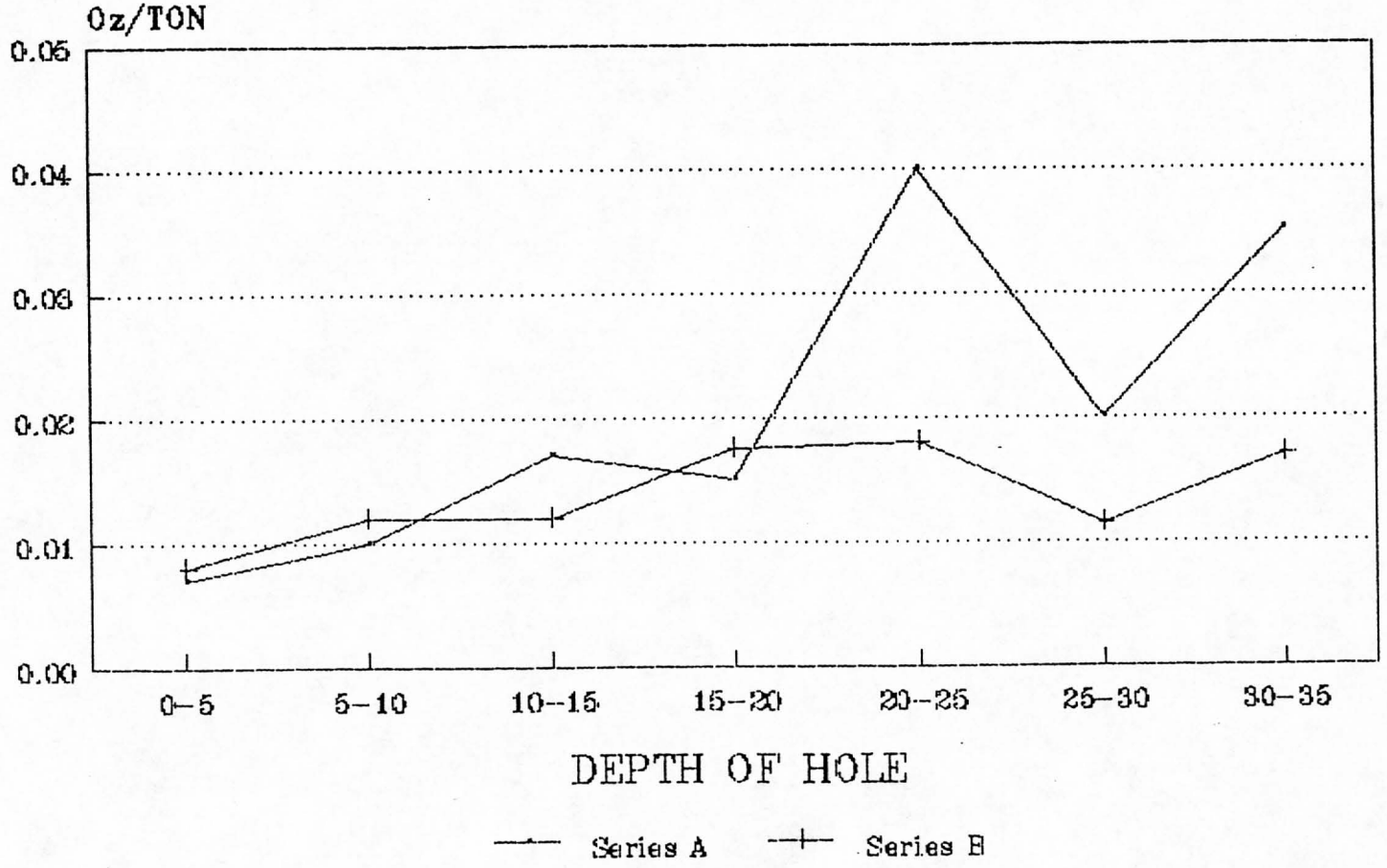
LP #9 (Au)



SERIES A = PBR / SERIES B = JACOBS

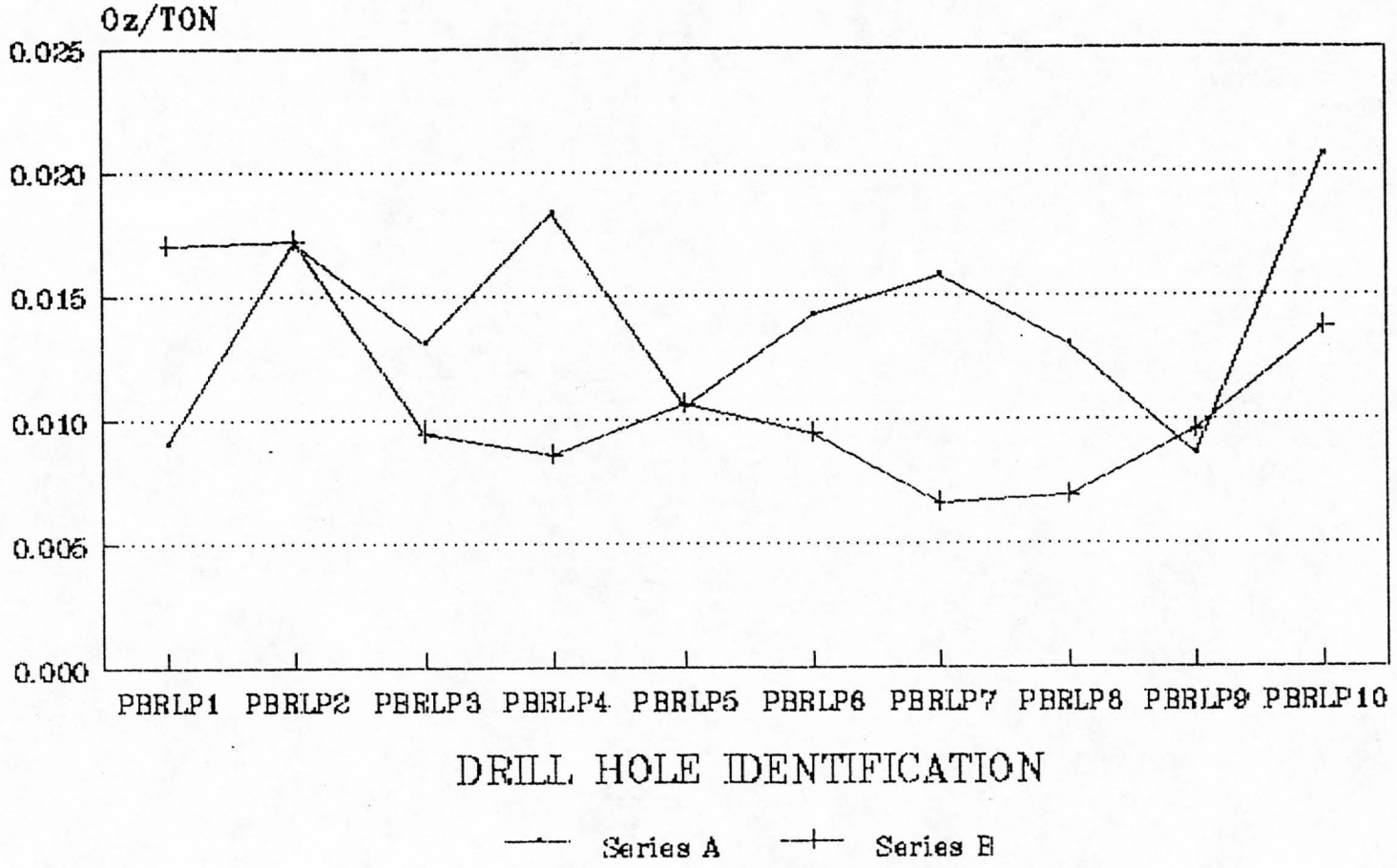
PBR ASSAYS

LP #10 (Au)



SERIES A = PBR / SERIES B = JACOBS

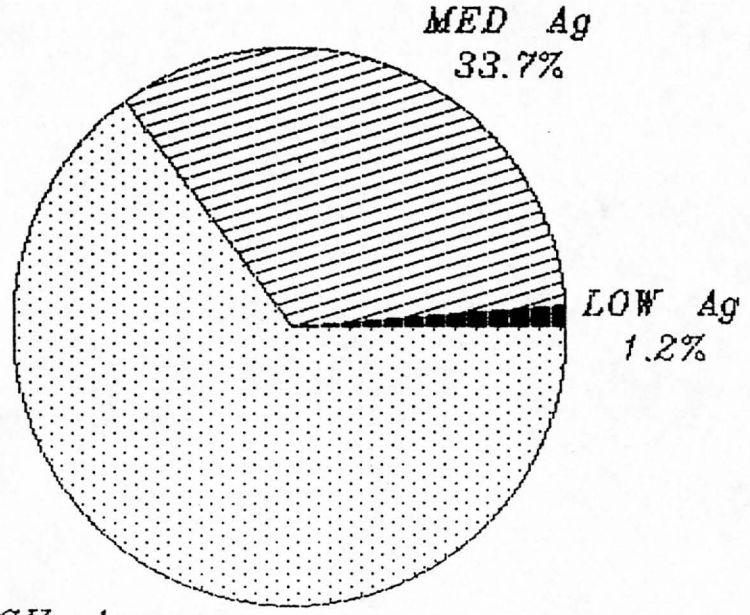
PBR ASSAYS
AVERAGE BY HOLE (Au)



SERIES A = PBR / SERIES B = JACOBS

PERCENTAGE OF SILVER ASSAYS

LOW/MED/HIGH RANGES

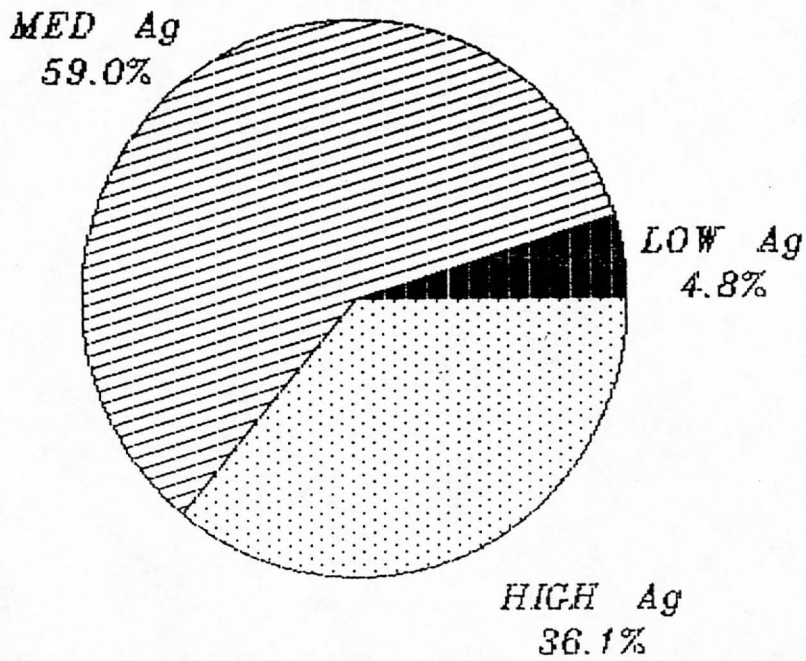


L=.17oz/t M=.49oz/t H=.99oz/t (AVG)

L=.30(-)/M=.30 TO .60/H=.60(+)

JACOBS SILVER ASSAYS

LOW / MED / HIGH RANGES

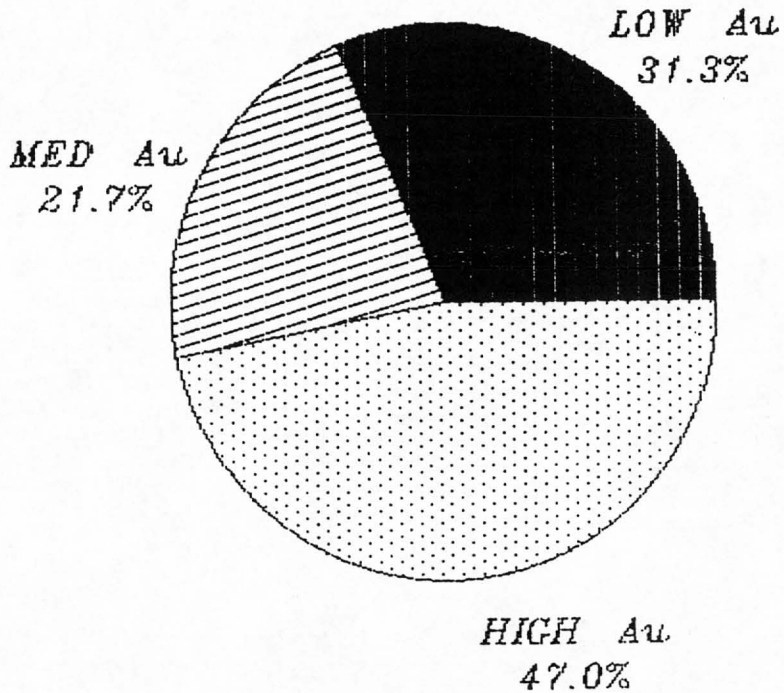


L=.19oz/t M=.45oz/t H=.90oz/t (AVG)

L=.03(−) M=.03 to .06 H=.06(+)

PERCENTAGE OF GOLD ASSAYS

LOW/MED/HIGH RANGES

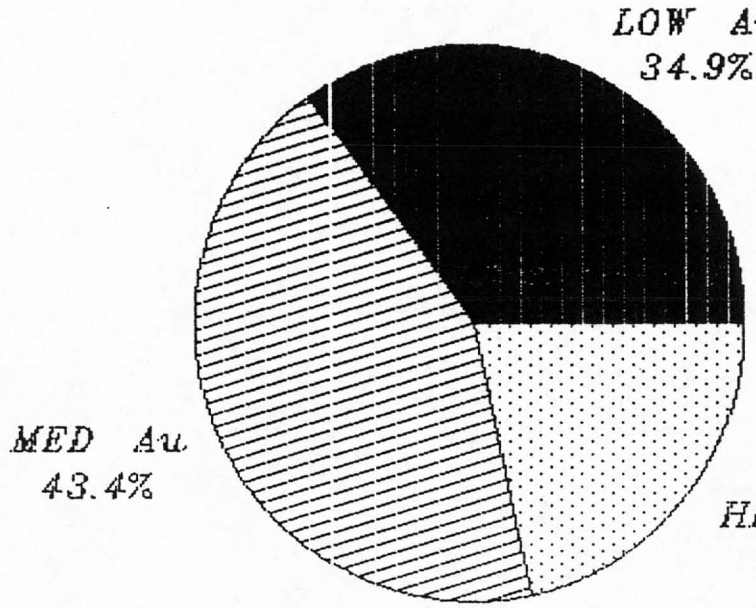


L=.006oz/t M=.010oz/t H=.030oz/t (AVG)

L = .008(−)/M = .008 TO .012/H = .012(+)

JACOBS GOLD ASSAYS

LOW / MED / HIGH RANGES

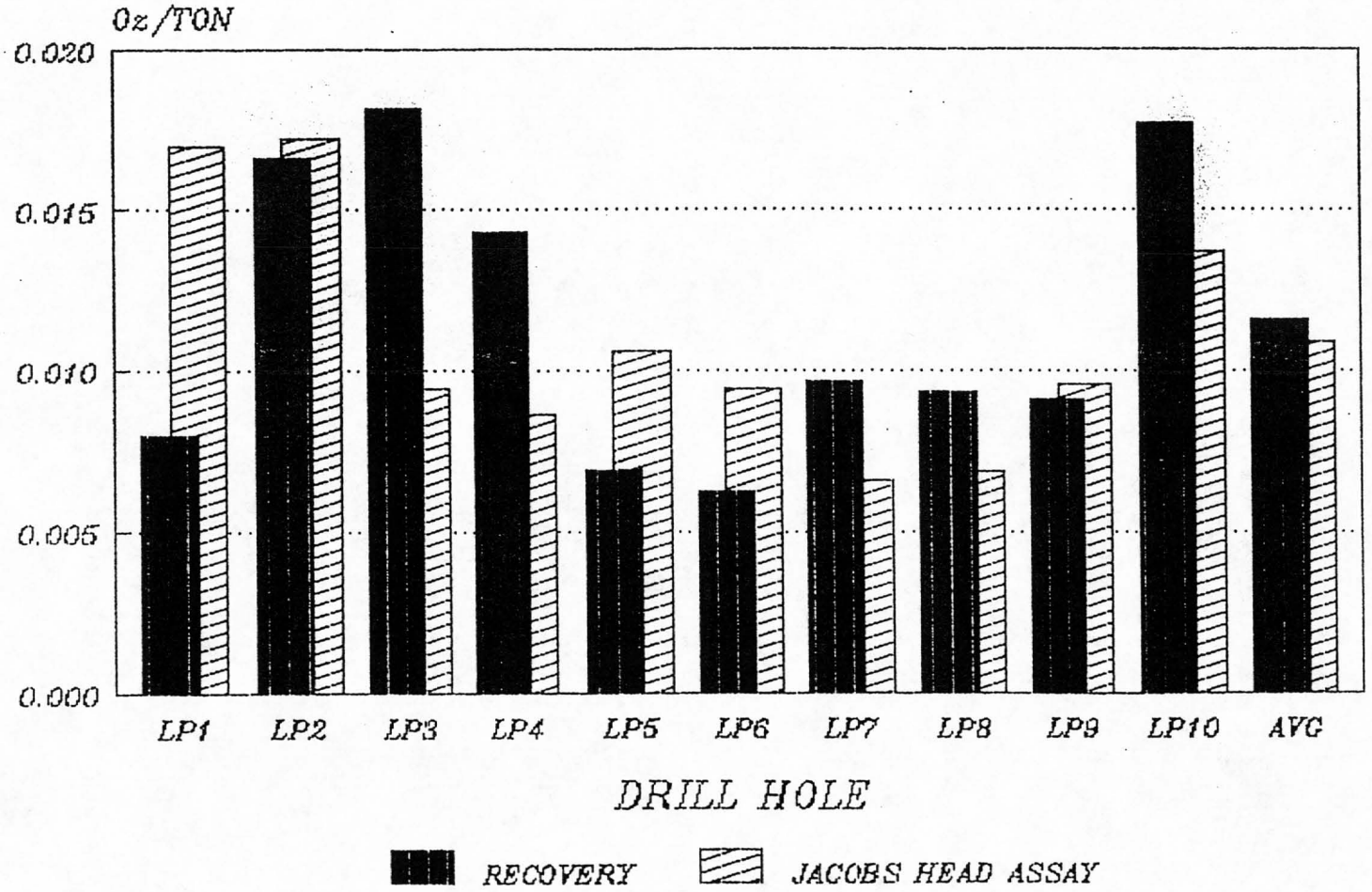


L=.005oz/t M=.010oz/t H=.020oz/t (AVG)

L=.008(−) M=.008 TO .012 H=.012(+)

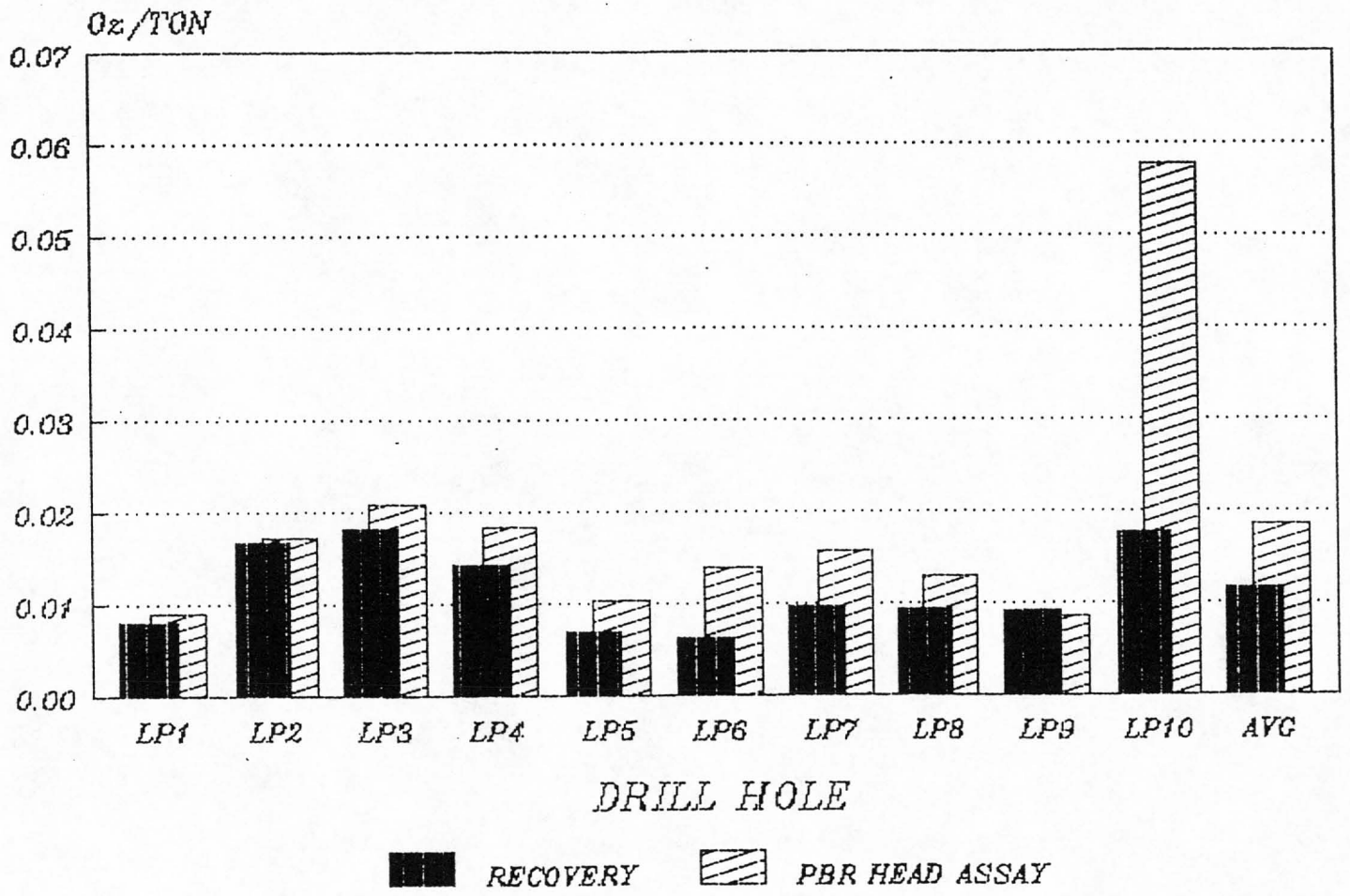
GOLD RECOVERY

A.A.S. BOTTLE ROLL



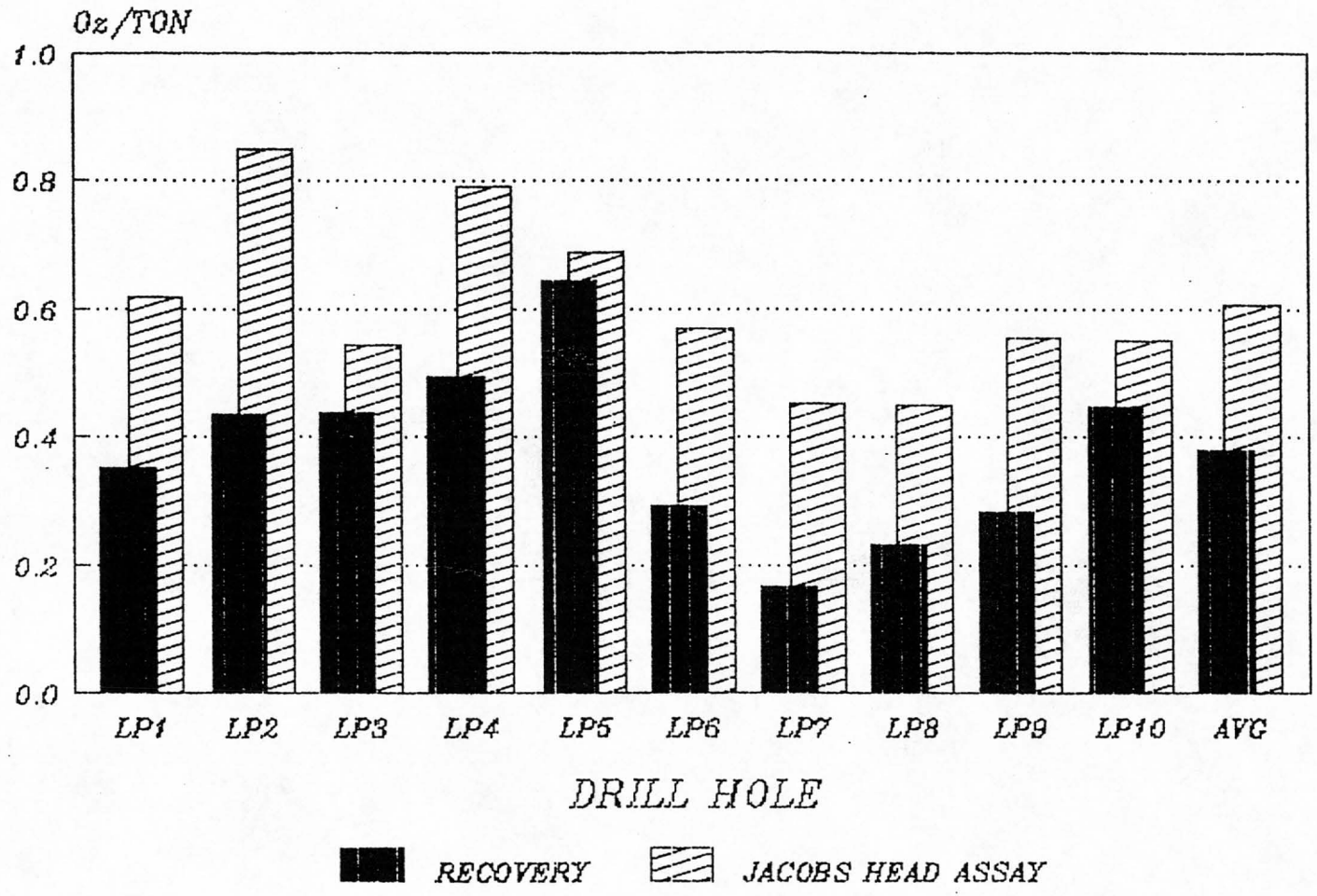
GOLD RECOVERY

A.A.S. BOTTLE ROLL



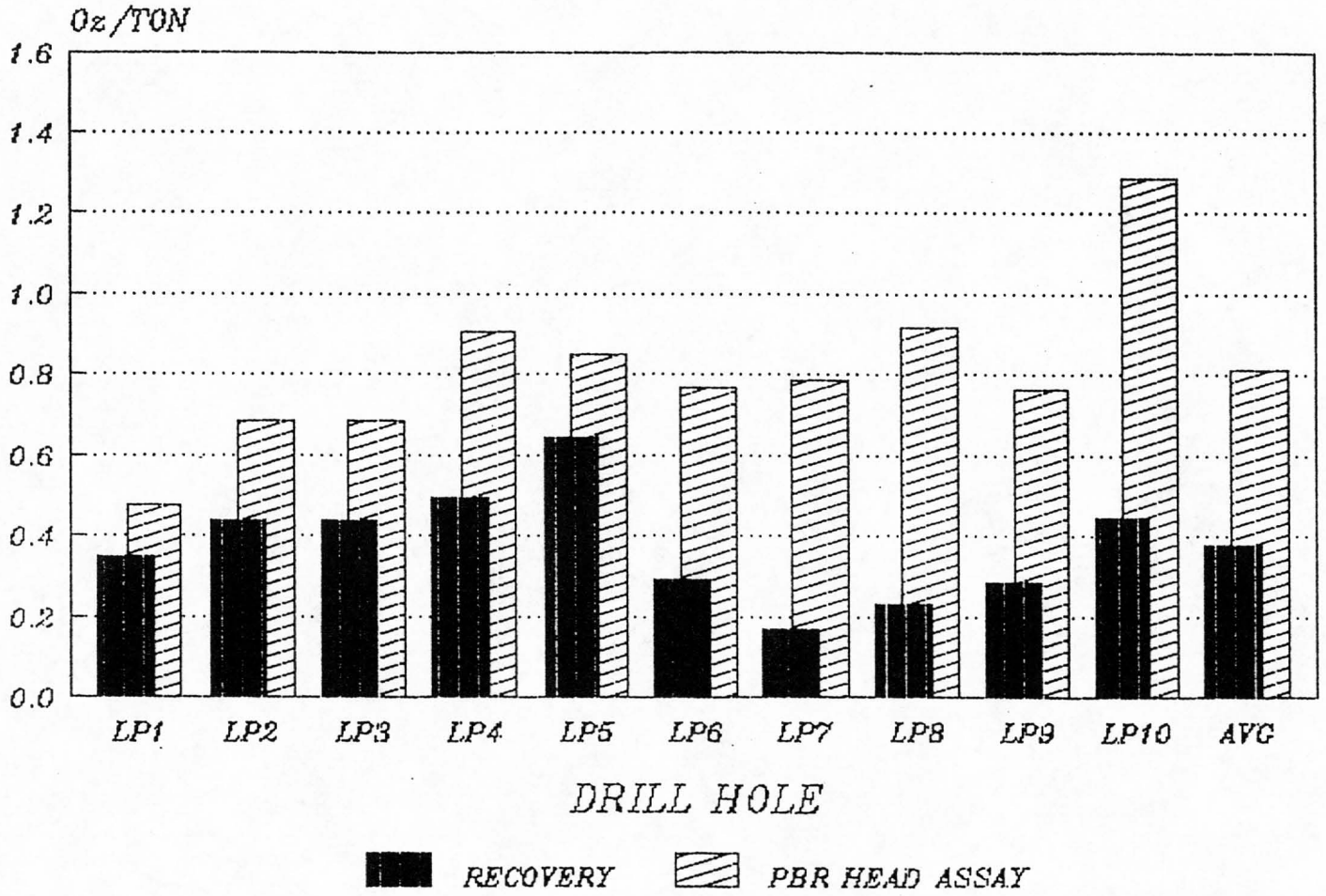
SILVER RECOVERY

A.A.S. BOTTLE ROLL



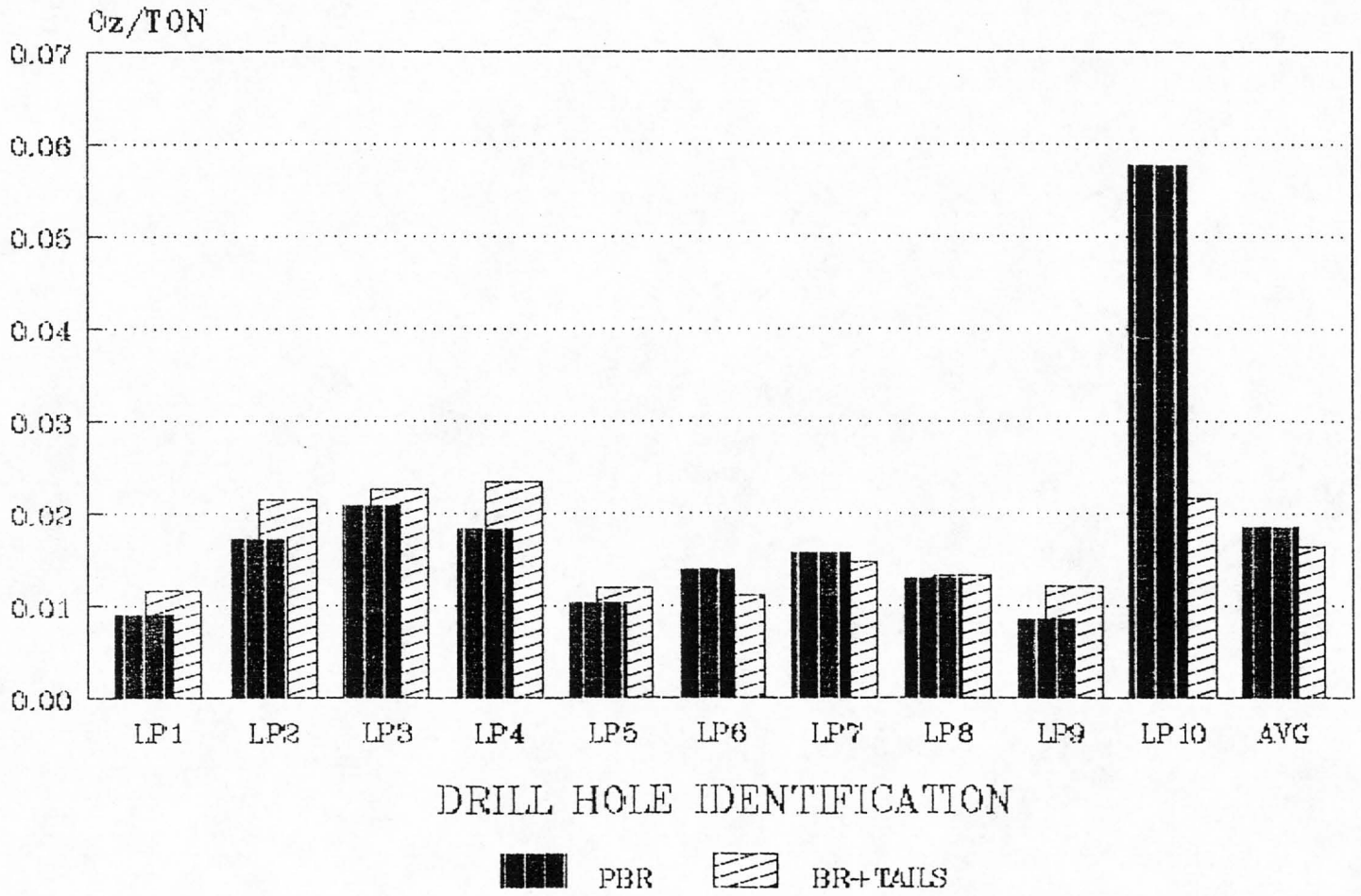
SILVER RECOVERY

A.A.S. BOTTLE ROLL



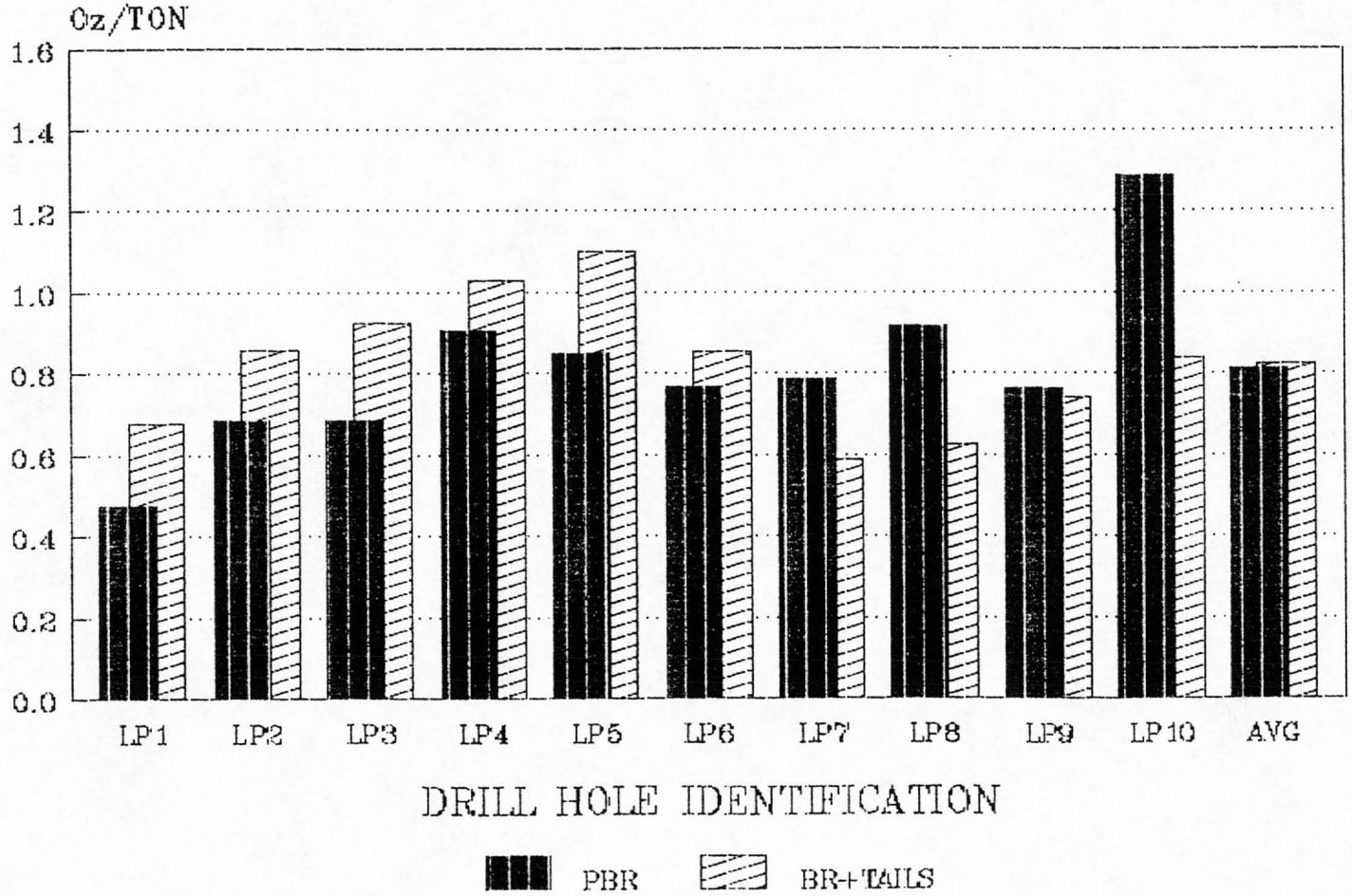
BOTTLE ROLL + TAILS vs PBR

Au



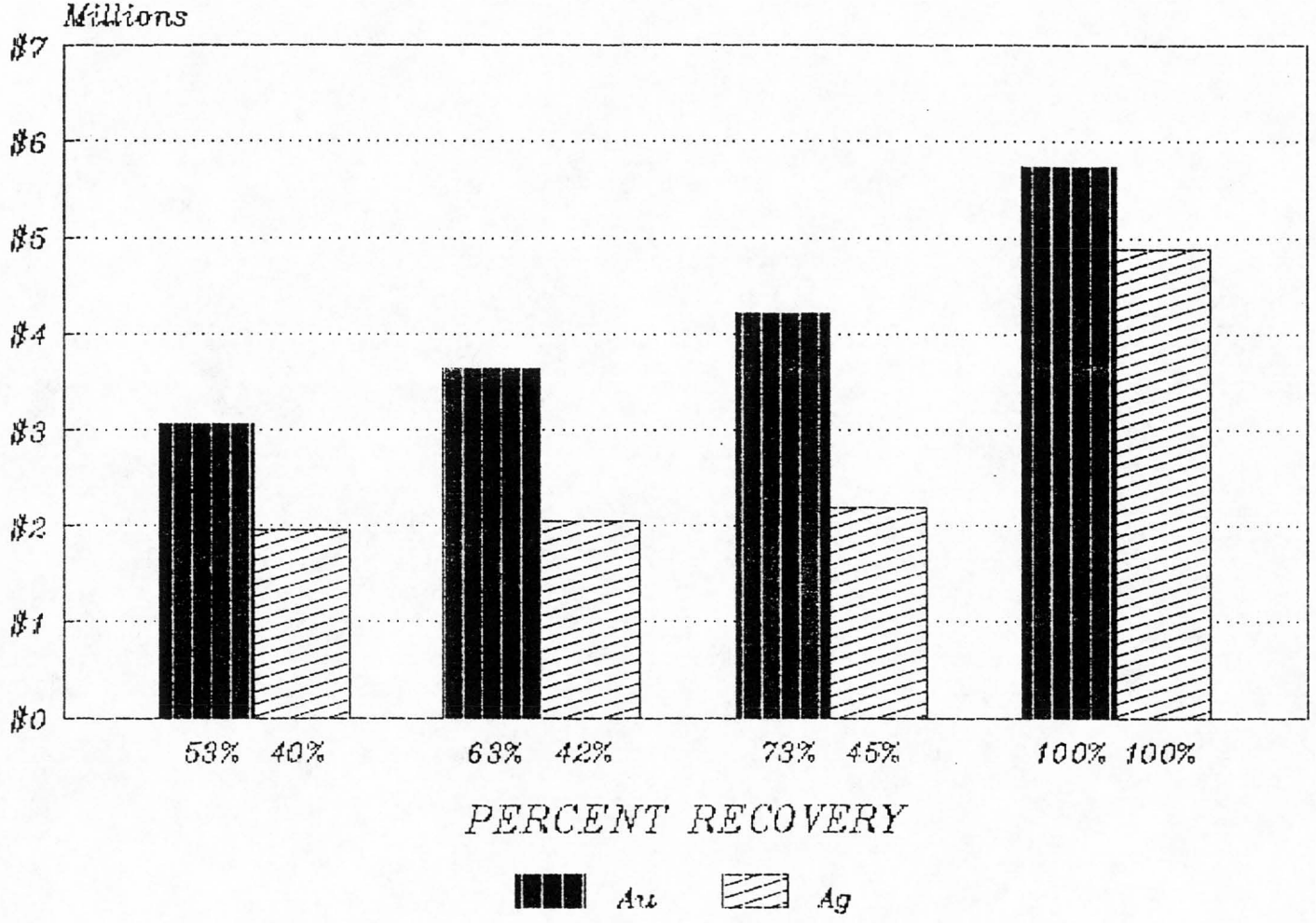
BOTTLE ROLL + TAILS vs PBR

Ag



RECOVERY

Leach Pile



Precip Assays

Laboratory Analysis

Precip Fire Assays

Date: 3-2-89

Sample Identification	Troy oz/Ton Au	Troy oz/Ton Ag		Precip Dry wt Pounds		Troy oz/Lot Au	Troy oz/Lot Ag	
Lot 2-26-89 bbl 1	24.900	1420.90		62.97		0.784	44.74	
Lot 2-26-89 bbl 2, ~~3, 4~~	32.900	1824.80		319.02		5.284	291.07	
Lot 2-27-89 bbl 1	34.700	1692.10		~~111.93~~ 114.93		2.029	98.93	
Lot 2-27-89 bbl 2	32.700	1573.00		141.19		2.308	111.05	
Lot 2-27-89 bbl 3	33.100	1640.60		53.26		0.871	43.69	
Lot 2-27-89 bbl 4	10.800	538.70		60.22		0.325	16.22	
Lot 2-28-89 bbl 1 & 2	46.800	3251.20		241.84		5.659	393.14	
Lot 2-28-89 bbl 3	43.800	3080.80		54.14		1.186	83.40	
Lot 2-28-89 bbl 4 & 5	32.000	2046.40		147.09		2.398	150.50	
Lot 2-28-89 bbl 6	23.400	1645.60		16.27		0.190	13.39	
Lot 3-1-89 bbl 1	50.900	3398.10		91.13		2.319	154.83	
Lot 3-1-89 bbl 2	42.700	3157.30		15.29		0.326	24.14	

REMARKS:

PBR Minerals
Precip Fire Assays

DATE: 3-4-89

Lot# & Date	Sample Weight	Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Ag
3-1-89 B61 3,4,5,6	.1	2780.00	42.70	2737.30	292.86	6.252	400.82
3-1-89 7	.1	3120.00	45.10	3074.90	40.79	0.919	62.71
3-2-89 182	.1	2610.00	34.80	2575.20	192.00	3.341	247.22
3-2-89 3	.1	1890.00	20.50	1869.50	104.14	1.067	97.34
3-2-89 485	.1	1770.00	28.30	1741.70	178.83	2.530	155.73
3-2-89 647	.1	2060.00	31.40	2028.60	176.37	2.769	178.89
3-3-89 182	.1	1750.00	28.80	1721.20	183.71	2.645	158.10
3-3-89 3	.1	1560.00	22.40	1537.60	97.55	1.097	75.33

PBR Minerals
Precip Fire Assays

DATE: 3-~~5~~-89

	Lot# & Date	Sample Weight	Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
1	3-1-89 B3456	.1AT	3145.00	47.900				
2	✓		3207.00	51.700	3155.30	292.86	7.570	462.03
3	3-1-89 B7		3426.00	52.200	3373.80	40.79	1.065	68.81
4	✓		3208.00	47.500				
5	3-2-89 B1-2		2642.00	36.000	2606.00	192.00	3.456	250.176
6	✓		2691.00	35.700				
7	3-2-89 B-3		1888.00	25.500	1862.50	104.14	1.328	96.98
8	✓		1898.00	25.100				
9	3-2-89 B4-5		1791.00	30.200	1760.80	178.83 ~~178.39~~	2.700	157.44
10	✓		1803.00	30.000				
11	3-2-89 B6-7		2224.00	36.900	2187.10	176.37	3.254	192.87
12	✓		2177.00	35.600				
13	3-3-89 B 1-2		1937.00	44.800	1892.20	183.71	4.115	173.81
	✓		1781.00	31.200				
15	3-3-89 B3-4		1554.00	24.100				
16	✓		1622.00	24.800	1597.20	97.99	1.215	78.25

PBR Minerals
Precip Fire Assays

DATE: 3-8-89

Lot# & Date		Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-6-89 B12345		AT	0	2020.00	28.600		593.3	8.988	611.01
″			0	1795.00	—				
″			3	2090.00	30.300	2059.70			
3-6-89 B-6			4	2106.00	32.600	2073.40	22.6	.368	23.43
″			5	2128.00	31.700				
″			6	2074.00	32.100				
3-7-89 B1-2			7	1645.00	22.400		210.4	2.388	173.30
″			8	1670.00	22.700	1647.30			
″			9	Lost					

Englehard
Dore Purity
↓

PBR Minerals
Precip Fire Assays

DATE: 3-12-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-7-89 B 3,4	✓ AT	1	1903.10	27.000	1876.10	218.5	2.950	204.96
↙		2	1872.20	26.800				
3-7-89 B 5		3	1155.20	14.100	1141.10	10.3	.073	5.88
↙		4	1171.20	12.900				
3-7-89 B 6,7		5	3914.00	53.100	3860.90	130.3	3.459	251.54
↙		6	3739.00	50.900				
3-8-89 B 1,2,3,4		7	2605.00	41.600		356.33	7.572	462.92
↙		8	2641.00	42.500	2598.50			
3-8-89 B 6-7		9	2943.00	52.000		132.24	3.590	202.57
↙		10	3118.00	54.300	3063.70			
3-9-89 B		11	3238.000	65.800		825.88	27.626	1323.10
↙		12	3271.00	66.900	3204.10			
3-10-89 B		13	2155.00	50.400	2104.60	270.02	6.805	283.74
↙		14	1922.00	45.500				
3-10-89 B		15	2479.00	53.200		257.92	6.912	314.07
↙		16	2489.00	53.600	2435.40			
		17						
		18						
		19						
		20						
		21						
		22						
		23						

PBR Minerals
Precip Fire Assays

DATE: 3-12-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-7-89 B3,4	AT	1	1903.10	27.000	1876.10	218.5	2.950	204.96
↓		2	1872.20	26.800				
3-7-89 B5		3	1155.20	14.100	1141.10	10.3	.073	5.88
↓		4	1171.20	12.900				
3-7-89 B6,7		5	3914.00	53.100	3860.90	130.3	3.459	251.54
↓		6	3739.00	50.900				
3-8-89 B1,2,3,4		7	2605.00	41.600		356.33	7.572	462.92
↓		8	2641.00	42.500	2598.50			
3-8-89 B6,7		9	2943.00	52.000		132.24	3.590	202.57
↓		10	3118.00	54.300	3063.70			
3-9-89 B		11	3238.000	65.800		825.88	27.626	1323.10
↓		12	3271.00	66.900	3204.10			
3-10-89 B		13	2155.00	50.400	2104.60	270.02	6.805	283.74
↓		14	1922.00	45.500				
3-10-89 B		15	2479.00	53.200		257.92	6.912	314.07
↓		16	2489.00	53.600	2435.40			
		17						
		18						
		19						
		20						
		21						
		22						
		23						

PBR Minerals
Precip Fire Assays

DATE: 3-13-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-10-89	.2AT	1	2285.00	43.200		11.6	.252	13.30
✓		2	2336.50	43.450	2293.15			
✓		3	2358.50	44.150				
3-11-89 B1,2		4	2049.00	49.850	1999.15	200.3	4.992	200.21
✓		5	2029.50	46.450				
✓		6	—					
				"Dore Purity"			% Au	% Ag
3-7-89-4	200mg		92.95	1			1.285	91.67
5			94.20	2			1.325	92.88
6			94.45	3			1.395	93.06
7			88.70	4			1.220	87.48
3-8-89 1			95.25	5			1.425	93.83
2			98.45	6			1.540	96.91
3			96.20	7			1.575	94.63
4			94.65	8			1.635	93.02
5			94.90	9			1.585	93.32
6			98.15	10			1.665	96.49
7			92.60	11			1.500	94.10
8			98.10	12			1.575	96.53
3-9-89 1			94.25	13			1.585	92.67
2			96.10	14			1.760	94.34
3			92.85	15			1.695	91.16
4			95.95	16			1.675	94.28
5			92.30	17			1.820	90.48
6			94.00	18			1.825	92.18
7			91.40	19			1.790	89.61
8			95.15	20			1.980	93.17
9			90.65	21			1.835	88.82

PBR Minerals
Precip Fire Assays

DATE: 3-14-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot % Au	% Ag
44325	200 MG	1	94.02	1.600			1.690	93.82
3-6-89		2	93.78	1.595				
# 4064		3	94.82	1.595				
	500 MG	4	95.04	1.690	✓ Ag x 1.005			
		5	94.60	1.638				
		6	——				Oz/Lot Au	T Ag
3-12-89	.1 AT	7	2058.00	46.000		528.5	12.816	551.09
✓		8	21.34.00	48.500	2085.50			
✓		9	2064.00	47.200				
3-12-89		10	1875.00	37.100	1837.90	864.8	16.042	794.71
✓		11	1864.00	36.700				
✓		12	1846.00	37.000				

PBR Minerals
Precip Fire Assays

DATE: 3-15-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-13-89	.1AT	1	1923.00	38.800		$64.1	17.109	807.67
↓		2	1909.00	39.600	1869.40			
↓		3	1903.00	39.200				
				Dore'	Purity			
3-12-89 1		4	87.90	2.006			2.006	85.89
↓		5	87.78	1.988				
2		6	93.00	2.020			2.056	91.24
↓		7	93.30	2.056				
3		8	91.72	2.000			2.040	90.26
↓		9	92.30	2.040				
4		10	95.10 *	1.896			2.050	91.41
↓		11	93.46	2.050				
5		12	93.00	2.026			2.026	90.97
↓		13	92.68	2.020				
6		14	94.74	2.046			2.076	91.18
↓		15	93.26	2.076				
7		16	92.56	1.968			1.968	90.59
↓		17	93.08	1.948				

PBR Minerals
Precip Fire Assays

DATE: 3-17-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-14-89	.1 AT	1	1217.00	—		598.7	8.981	503.81
↓		2	1673.00	29.000				
↓		3	1713.00	30.000	1683.00			
3-15-89		4	2102.00	45.600		672.4	15.566	708.27
↓		5	2153.00	46.300	2106.70			
↓		6	2148.00	44.600				
3-16-89 B1		7	2763.00	66.500		173.6	5.850	233.89
↓		8	2494.00	59.800				
↓		9	2762.00	67.400	2694.60			
				Dore Purity				
3-12-89 8	500mg	10	93.54	1.858			1.858	91.68
↓		11	93.64	1.820				
3-12-89 9		12	88.36	1.836			1.844	86.20
↓		13	88.04	1.844				
3-12-89 10		14	90.52	1.858			1.920	88.42
↓		15	90.34	1.920				
3-13-89 1		16	85.74	1.868			1.868	83.87
↓		17	85.60	1.734				
3-13-89 2		18	91.22	1.896			1.896	89.32
↓		19	91.32	1.872				
3-13-89 3		20	86.84	1.760			1.760	85.08
↓		21	81.60	1.642				
3-13-89 4		22	91.24	1.830			1.850	90.03
↓		23	91.88	1.850				
3-13-89 5		24	85.86	1.680			1.706	84.19
↓		25	85.90	1.706				
3-13-89 6		26	91.08	1.860			1.912	88.37
↓		27	90.28	1.912				
3-13-89 7		28	87.28	1.734			1.746	85.75
↓		29	87.50	1.746				

PBR Minerals
Precip Fire Assays

DATE: 3-19-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/~~lot~~ % Au	% Ag
3-13-89 8	500mg	1	90.88	1.584			1.884	89.00
✓		2	91.18	1.846				
3-14-89 1		3	87.52	1.698			1.730	85.19
✓		4	86.92	1.730				
3-14-89 2		5	89.54	1.624			1.608	89.15
✓		6	90.76	1.608				
3-14-89 3		7	87.84	1.572			1.572	86.27
✓		8	87.32	1.586				
3-14-89 4		9	90.32	1.558			1.558	88.76
✓		10	89.22	1.534				
3-14-89 5		11	87.10	1.486			1.520	85.26
✓		12	86.78	1.520				
3-14-89 6		13	87.64	1.558			1.556	86.94
✓		14	88.50	1.556				
3-14-89 7		15	86.78	1.570			1.586	85.71
✓		16	87.30	1.586				
3-14-89 8		17	90.84	1.528			1.612	89.03
✓		18	90.64	1.612				
3-14-89 9		19	86.18	1.590			1.608	85.37
✓		20	86.98	1.608				

PBR Minerals
Precip Fire Assays

DATE: 3-15-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-16-89	.1 AT	21	2334.00	56.700		540.2	16.044	632.47
✓		22	2398.00	58.000				
✓		23	2401.00	59.400	2341.60			
3-17-89		24	2498.00	63.000		571.7	18.209	699.85
✓		25	2405.00	61.400				
✓		26	2512.00	63.700	2448.30			
3-18-89		27	2364.00	61.400		586.7	19.214	715.92
✓		28	2506.00	65.500	2440.50			
✓		29	2493.00	—				

PBR Minerals
Precip Fire Assays

DATE: 3-21-89

Doré Purity

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot % Au	% Ag
3-15-89 1	500mg	1	92.40				1.788	90.61
2		2	90.00				1.720	88.28
3		3	92.78				1.820	90.96
4		4	88.98				1.928	87.05
5		5	96.64				2.304	94.34
6		6	92.40				2.164	90.24
7		7	90.14				2.106	88.03
8		8	90.14				2.016	88.12
3-16-89 1		9	95.40				2.366	93.03
2		10	93.62				2.294	91.33
3		11	94.56				2.300	92.26
4		12	93.32				2.344	90.98
5		13	92.94				2.318	90.66
6		14	88.94				2.210	86.73
7		15	93.14				2.460	90.68
3-17-89 1		16	92.74				2.490	90.25
2		17	94.16				2.452	91.71
3		18	94.52				2.432	92.09
4		19	96.74				2.476	94.26
5		20	95.42				2.380	93.04
6		21	96.24				2.434	93.81
7		22	95.04				2.500	92.52
8		23	94.44				2.448	91.99
3-18-89 1		24	95.94				2.426	93.51
2		25	95.46				2.448	93.01
3		26	95.70				2.524	93.18
4		27	95.06				2.430	92.63
5		28	96.44				2.388	94.06
6		29	94.98				2.294	92.69
7		30	95.52				2.316	93.20
8		31	93.84				2.284	91.56
3-19-89 1		32	96.84				2.146	94.69
2		33	93.16				2.012	91.15
3		34	96.80				2.020	94.78

PBR Minerals
Precip Fire Assays

DATE: 3-21-89

Doré Purity

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/~~lot~~ Au %	% Ag
378	500 MG	1	94.22	1.666			~~1.7~~	~~93.94~~
3-13-89		2	94.56	1.674				
#4097		3	94.68	1.702	~~92.98 Ag x 1.005~~		1.676	93.24
Engelhard Shipment		4	94.24	1.638				
		5	94.68	1.664				
		6	94.46	1.676	✓ 92.78 Ag x 1.005			
Slag 3-19-89	.5 AT	1	27.72	.520	27.20			
#3 ✓		2	24.90	.440	24.46			
SLAG ✓		3	29.82	.520	29.30			
BIN (RECENT)		4	68.62	1.420	67.20	Slag		
✓		5	55.66	1.160	54.50			
✓		6	101.40	2.160	99.24			
Slag BIN (PAST)		7	23.26	.440	22.82	Oz/Ton		
✓		8	26.34	.520	25.82			
✓		9	11.60	.200	11.40		Au Oz/	Lot Ag
3-18-89 BC	.1 AT	10	1,677.00	36.100	1640.90	19.4	.350	15.92
3-19-89		11	2,906.00	54.600		532.7		
✓		12	3,009.00	60.900	2948.10		16.221	785.23

Laboratory Analysis

Precip Insol

Date: 3-22-89

Sample Identification		1	2	3				
Lot 3-16-89 bb1#1	Gross	2.317	2.420	2.374				
	Tare	1.556	1.662	1.617				
	Wt	.761	.758	.757				
	% Insol	76.1%	75.8%	75.7%				
	Pounds Dry Wt	Tray lbs Done	Insol					
	173.6	16 4/39	131.6# lbs		ZN - Non ferrous Metals			
	100%	9.63%	75.82		15.57%			

REMARKS:

PBR Minerals
Precip Fire Assays

DATE: 3-24-89

Doré Purity

Lot# & Date	Sample Weight	Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-19-89 4	500mg 1	95.54				2.122	93.42
5	2	96.10				2.088	94.01
6	3	91.96				1.972	89.99
7	4	97.86				1.962	95.90
8	5	97.60				1.988	95.61
9	6	95.06				1.934	93.13
3-20-89 1	500 mg 7	94.76				1.892	92.87
2	" 8	93.60				1.810	91.79
3	No sample	—	—	—	—	—	—
4	500 mg 9	91.42				1.860	89.56
5	10	98.54				1.738	96.80
6	11	91.06				1.666	92.39
7	12	92.00				1.604	90.40
8	13	91.14				1.670	89.47
9	14	97.92				1.816	96.18
10	15	90.84				1.726	89.11
11	16	89.20				1.680	87.52
3-21-89 1	17	90.38				1.698	88.68
2	18	90.78				1.616	89.16
3	19	88.34				1.480	86.86
4	20	90.62				1.600	89.02
5	21	89.48				1.646	87.83
6	22	93.92				1.922	92.00
3-22-89 1	23	92.00				1.886	90.11
2	24	92.78				1.884	90.90
3	25	94.12				1.806	92.31
4	26	90.78				1.812	88.97
5	27	95.58				1.846	93.73
3-23-89 1	28	92.02				1.766	90.25
2	29	94.14				1.816	92.32
3	30	93.62				2.068	91.55

PBR Minerals
Precip Fire Assays

DATE: 3-26-89

Lot# & Date	Sample Weight	Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
3-20-89	1 1AT	2374.00	41.400		708.7	14.883	835.56
✓	2	2400.00	42.000	2358.00			
3-20-89 B8	3	2801.00	54.900	2746.10	55.6	1.526	76.34
✓	4	2751.00	54.100				
3-21-89	5	27.53.00	48.900		419.7	10.304	565.44
✓	6	2742.00	49.100	2692.90			
3-22-89	7	3404.00	65.400		919.7	31.132	1513.50
✓	8	3359.00	67.700	3291.30			[illegible]
3-23-89	9	3121.00	63.000	3158.00	632.7	19.930	[illegible]
✓	10	3103.00	60.500				967.40
3-24-89	11	2154.00	47.400	2108.60	211.7	16.867	750.35
✓	12	2150.00	47.200				

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

	LOT No.	Bbl No	DRY WT PRECIP		DORE'	Oz/ TON Au	Ag	Oz/ LOT Au	Ag
IAT	3-25-89		415.2	1	2212.00	39.700		8.719	477.90
	✓			2	2374.00	42.000	2302.00		
	✓			3	2276.00	—			
	3-26-89		781.1	4	1924.00	36.000	1888.00	14.060	737.36
	✓			5	1897.00	35.600			
	✓			6	—				
	3-27-89		812.8	7	1865.00	35.400	~~1846.20~~	14.549	750.30
	✓			8	1882.00	35.800	1846.20		
	✓			9	→				

PBR Minerals
Precip Fire Assays

DATE: 3-29-89 Doré Purity

Lot# & Date	Sample Weight	Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Ag
[illegible]-89 4	① 500MG	91.40				1.930	89.47
3-24-89 1	②	90.06				2.088	87.97
2	③	91.74				2.068	89.67
3	④	94.02				2.038	91.98
4	⑤	91.00				1.832	89.17
5	⑥	94.34				1.878	92.46
3-25-89 1	⑦	90.64				1.718	88.92
2	⑧	89.74				1.720	88.02
3-26-89 1	⑨	94.92				1.970	92.45
2	⑩	91.08				1.760	89.32

PBR Minerals
Precip Fire Assays

DATE: _____ Doré Pours

Lot# & Date	Sample Weight	Dore' wt.	Mg wt. Au	Ag	Dry wt.	Troy oz/lot Au	Troy oz/lot Ag
2-26-89 3	500mG	89.08 [1]				1.668	87.41
4		90.56 [2]				1.694	88.87
5		89.80 [3]				1.704	88.10
6		89.96 [4]				1.694	88.27
3-27-89 1		89.66 [5]				1.682	87.98
2		93.84 [6]				1.758	92.08
3		92.90 [7]				1.844	91.06
4	No Sample						
5		91.96 [8]				1.796	90.16
3-28-89 1		95.42 [9]				1.898	93.52
2		94.34 [10]				1.894	92.45
3		93.72 [11]				1.896	91.82
4		93.08 [12]				1.962	91.12
5		94.26 [13]				2.238	92.02
6		95.64 [14]				2.248	93.39
3-29-89 1		95.70 [15]				2.274	93.43
2		95.88 [16]				2.340	93.54

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

4-2-89

	LOT No.	Bbl No	DRY WT PRECIP	DORE'	Oz/ TON Au	Ag	Oz/ LOT Au	Ag
1	3-30-89	—	626.3	1879.00	45.800		14.718	590.29
2	✓			1901.00	46.900			
3	✓			1932.00	47.000	1885.00		
4	3-31-89		620.5 ✓	2121.00	51.800			
5	✓			2132.00	52.800	2079.20	16.381	645.07
6	✓			2109.00	52.700			

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

4-4-89

LOT No.	Bbl No	DRY WT PRECIP	DORE'	Oz/ TON Au	Ag	Oz/ LOT Au	Ag
4-1-89	1	6866	2065.00	42.600	2022.40	14.625	694.29
″	2	″	2024.00	42.700	″	″	″
″	3	″	2047.00	42.500	″	″	″
4-2-89	4	6825	2395.00	45.900	″	15.663	813.13
″	5	″	2429.00	46.200	2382.80	″	″
″	6	″	2377.00	45.100	″	″	″

PRECIP FIRE ASSAYS -- PBM MINERALS, Inc.

LOT No.	Bbl No	DRY WT PRECIP	DORE'	Oz/ TON Au	Ag	Oz/ LOT Au	Ag
4-5-89	#11	565.30	1955.00	37.200	1917.80	10.518	542.26

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

4-11-89

LOT No.	Bbl No	DRY WT PRECIP	DORE'	~~Oz~~/ TON Au	Ag	Oz/ ~~LOT~~ TON Au	Ag
SLAG 4-2-89	SAT	~~29.74~~ 1	29.74	.220		.440	59.04
″		2	28.18	.210		.420	55.94
″		3	27.77	.200		.400	55.14
SLAG Vic		4	423.60	7.070		14.140	833.06
″		5	391.50	6.310		12.620	770.38
″		6	404.80	6.510		13.020	796.58
Vic 1	JAT	7	144.60	2.130	21.300	~~4.260~~	
″		8	148.40	2.140	21.400	~~4.280~~	1462.60
Vic 2		9	197.90	2.980	29.800	~~5.960~~	
″		10	202.30	3.190	31.900	~~6.380~~	1991.10
Vic 3		11	185.30	2.710	27.100	~~5.420~~	1825.90
″		12	184.70	27.100	27.100	~~5.420~~	

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

4-11-89

LOT No.	Bbl No	DRY WT PRECIP	DORE'	Oz/TON Au	Oz/TON Ag	Oz/LOT Au	Oz/LOT Ag
Slag 1			1702.80				
Slag 2			300.80				
Lot 4-9-89		741.97	2007.50				
Slag 4-9-89 V.C			57.13 ~~261.80~~				
Slag 4-9-89 Gold			813.27				
4-10-89-1			1465.00 ~~1544.83~~				
4-10-89-2			200.00				
4-10-87-3			185.00				

Dore oz/lot 714.75

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

4-10-89

LOT No.	~~Bbl No~~ WET #	~~DRY WT~~ % Moisture PRECIP	DORE'	Oz/ TON Au	Ag	Oz/ LOT Au	Ag	Average
4-6-89	1099.0 All	~~50.44~~ 547.9 Lbs	3266.00	61.400	3204.60	16.812	878.00	Au 16.740
~	~		3161.00	60.800	3100.20	16.658	849.39	Ag 863.70
4-7-89	657.0 All	~~49.70~~ 330.47	2458.00	49.600	2408.40	8.196	397.95	Au 8.180
~	~		2457.00	49.400	2407.60	~~8.146~~ 8.163	397.82	Ag 397.88
4-8-89	1125.5 All	~~51.45~~ 546.43	1884.00	36.300	1841.70	9.918	504.82	Au 9.850
~	~		1876.00	35.800	1840.20	9.781	502.77	Ag 503.80

4-11-89

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

LOT No.	~~Dbl No~~ WET#	~~DRY WT~~ % MOISTURE PRECIP	DORE'	Oz/ Au	TON Ag	Oz/ Au	~~DOT~~ TON Ag
SLAG #1	SAT	13	851.40	.17160		34.320	1668.48
✓		14	630.90	13.330		26.660	1235.14
SLAG #2		15	150.40	2.360		4.720	296.08
✓		16	74.50	.800	~~.800~~	1.600	147.40
4-9-89	1441	17 48.51	199.70	3.400	741.97	~~6.800~~	LOT LOT
✓		18	201.80	3.510	741.97	~~7.020~~ OZ LOT	~~360.43~~ 722.60 OZ LOT
✓		19				13.022	747.35

4-13-89

DORE'PURITY ASSAYS -- PBR MINERALS, Inc.

LOT No.	SAMPLE WT	DORE'	WEIGHT Au	WEIGHT Ag	PERCENT Au	PERCENT Ag
4-9-89-2	500 mg	488.4	8.75			
4-10-89-1	"	487.0	8.47			
" 4	12	484.3	8.21			

PRECIP FIRE ASSAYS -- PBR MINERALS, Inc.

4-23-89

LOT No.	Bbl No	DRY WT PRECIP	DORE'	Oz/ TON Au	Ag	Oz/ LOT Au	Ag
4-20-89	12	52.34 1	246.90	4.990			
	13 101.5	48.71 2	259.30	5.790			
4-21-89	1 243.5	45.27 3	272.20	6.140			
	2 101.0	50.58 4	295.90	7.160			
	3 106.0	51.46 5	288.70	6.790			
	4 80.0	52.30 6	289.00	6.840			
	5 48.0	52.46 7	264.90	6.060			
	6 80.0	47.52 8	283.00	6.200			
	7 80.0	50.44 9	242.50	5.390			
	8 98.0	43.48 10	292.80	5.750			
	9 74.0	47.53 11	243.50	5.340			
	10 71.5	52.28 12	238.00	5.270			
4-20-89	1 131.0	52.58 13	297.90	6.090			
	2 103.0	52.00 14	315.70	6.100			
	3 101.5	52.32 15	320.80	6.120			
	4 70.0	52.18 16	297.40	5.820			
	5 97.0	51.82 17	237.40	4.950			
	6 96.0	49.43 18	242.70	4.770			
	7 96.5	49.11 19	242.70	4.160			
	8 76.0	51.62 20	250.80	5.100			
	9 80.5	50.10 21	268.60	5.240			
	10 90.5	50.78 22	246.80	4.730			
	11 86.0	45.34 23	261.70	5.090			
4-19-89	1	24	242.00	4.460			

Laboratory Analysis

Date: 8-18-89

Sample Identification	Au (Troy oz/ton)	Ag (Troy oz/ton)		% Insol		% Moisture		
Precip 8-17-89	6.975	7303.58		28.67		42.8		

REMARKS:

Date: 8-8-89

Fire Assay

Bottle Roll

Sample Identification	Dore'	Au	Ag		Au	Ag		
Fifteen Tray Sludge		574.10	—					
		387.60	—					
		1300.80	27.40					
Average		754.17	—					

REMARKS:

PRECIP ASSAYS

Date: 9-5-89 Muffle #: 1 Fire Assay

	Sample ID	Dore'	Au	Ag	% Mois.	Oz/Au	Oz/Ag
1	Lot 9-1-89	970.00	8.18	961.82	55.71	81.80	9618.20
2	" " duplicate	996.00	8.42	987.58	"	84.20	9875.80
3	" " triplicate	995.00	8.41	986.59	"	84.10	9865.90
4	Lot 9-2-89	679.00	5.85	673.15	59.97	58.50	6731.50
5	" " duplicate	707.00	5.88	701.12	"	58.80	7011.20
6	" " triplicate	662.00	5.84	656.16	"	58.40	6561.60
7	Lot 9-3-89	515.00	4.94	510.06	61.13	49.40	5100.60
8	" " duplicate	546.00	5.31	540.69	"	53.10	5406.90
9	" " triplicate	530.00	5.13	524.87	"	51.30	5248.70
10	Lot 9-4-89 @	269.00	2.68	266.32	58.24	26.80	2663.20
11	" " duplicate	262.00	2.87	259.13	"	28.70	2591.30
12	" " triplicate	250.00	2.45	247.55	"	24.50	2475.50

NOTE: Oz/Au & Oz/Ag represent ounces per pound...

Lot Number: 9-1-89	
Tare Weight:	154.0
Wet Weight:	280
Dry Weight:	124

Lot Number: 9-2-89	
Tare Weight:	171.7
Wet Weight:	284.8
Dry Weight:	114.0

Lot Number: 9-3-89	
Tare Weight:	154.0
Wet Weight:	239.5
Dry Weight:	93.1

Lot Number: 9-4-89	
Tare Weight:	112.0
Wet Weight:	182.0
Dry Weight:	76.0

PRECIP ASSAYS

Date: Muffle #: 2 Fire Assay

	Sample ID	Dore'	Au	Ag	% Mois.	Oz/Au	Oz/Ag
	9-6-89 MAT	216.00	2.260		63%		
2	"	208.00	2.140		"		
3	"	206.00	2.200		"		
4							
5							
6							
8							
9							
10							
11							
12							

NOTE: Oz/Au & Oz/Ag represent ounces per pound...

Lot Number: 9-6-89

Tare Weight:
Wet Weight: 190.5
Dry Weight: 69.6

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

PRECIP ASSAYS

Date: 9-12-89 Muffle #: 2 Fire Assay

	Sample ID	Dore'	Au	Ag	% Mois.	Oz/Au	Oz/Ag
1	9-10-89 .1 AT	589.00	——	——			
2	" "	598.00	——	——			
3	" "	604.00	3.720				
4		613.00	3.820				
5		613.00	3.820				
6							
7							
8							
9							
10							
11							
12							

NOTE: Oz/Au & Oz/Ag represent ounces per pound...

Lot Number:
Tare Weight: Wet Weight: Dry Weight:

Lot Number:
Tare Weight: Wet Weight: Dry Weight:

Lot Number:
Tare Weight: Wet Weight: Dry Weight:

Lot Number:
Tare Weight: Wet Weight: Dry Weight:

PRECIP ASSAYS

Date: 9-13-89 Muffle #: 1 Fire Assay

	Sample ID	Dore'	Au	Ag	% Mois.	Oz/Au	Oz/Ag
1	Lot 9-13-89	672.00	3.553		55%		
2	✓	640.00	3.417		✓		
3	✓	663.00	3.541		✓		
4	✓	672.00	3.518		✓		
5	✓	663.00	3.568		✓		
6							
7							
8							
9							
10							
11							
12							

NOTE: Oz/Au & Oz/Ag represent ounces per pound...

Lot Number: 9-13-89

Tare Weight: —
Wet Weight: 306.9
Dry Weight: 138.9

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

PRECIP ASSAYS

Date: 9-18-89 Muffle #: Fire Assay

	Sample ID	Dore'	Au	Ag	% Mois.	Oz/Au	Oz/Ag
1	Lot 9-17-89	750.00	3.717		53%		
2	✓	742.00	3.665		✓		
3	✓	767.00	3.888		✓		
4							
5							
6							
7							
8							
9							
10							
11							
12							

NOTE: Oz/Au & Oz/Ag represent ounces per pound...

Lot Number: 9-17-89

Tare Weight: —
Wet Weight: 376.8
Dry Weight: 176.6

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

PRECIP ASSAYS

Date: 9-25-89 Muffle #: | Fire Assay

	Sample ID	Dore'	Au	Ag	% Mois.	Oz/Au	Oz/Ag
1	9-24-89 (1/10 ASSAY TON)	495.00	5.083	489.92	61.6 %		
2	✓ "	505.00	5.140	499.86	" "		
3	✓ "	489.00	4.843	484.16	" "		
4	SLAG 9-25-89 (1/2 ASSAY TON)	298.00	1.528	296.47			
5	" (DUPLICATE) "	318.00	1.450	316.55			
6	" (TRIPLICATE) "	306.00	1.516	304.48			
7							
8							
9							
10							
11							
12							

NOTE: Oz/Au & Oz/Ag represent ounces per pound...

Lot Number: 9-24-89
Tare Weight:
Wet Weight:
Dry Weight: ✓

Lot Number:
Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:
Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:
Tare Weight:
Wet Weight:
Dry Weight:

758 / 2 / 1516

725 / 2 / 1450

764 / 2 / 1528

PRECIP ASSAYS

Date: 9-26-89 Muffle #: Fire Assay

	Sample ID	Dore'	Au	Ag	% Mois.	Oz/Au	Oz/Ag
1	9-26-89	231	3.580	..	65.26%		
2	✓	235	3.650				
3	✓	230	3.430				
4							
5							
6							
7							
8							
9							
10							
11							
12							

NOTE: Oz/Au & Oz/Ag represent ounces per pound...

Lot Number: 9-26-89

Tare Weight: —
Wet Weight: ~~[illegible]~~ 250.4 TOTAL WET WEIGHT
Dry Weight: 87

65.26% H_2O

251 TARE & DRY

170 TARE

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Lot Number:

Tare Weight:
Wet Weight:
Dry Weight:

Dore Assays

Laboratory Analysis

Date: 3-2-89

Dore' Purity

Percent Purity

Sample Identification	Au	Ag						
Lot 2-27-89 #1	1.805	89.94						
Lot 2-27-89 #2	1.820	92.72						
Lot 2-27-89 #3	1.845	92.16						
Lot 2-27-89 #4	1.845	92.44						
Lot 2-27-89 #5	1.815	92.36						

REMARKS:

Note: Correction factors were not used on these assays.

PBR Minerals
Precip Fire Assays

DATE: 3-5-89

Doré Purity %

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	% Au ~~Troy oz/lot~~	% Ag
2-28-89 #1	~~200~~ mg	1	93.60	1.390			1.390	92.21
2-28-89 #2		2	96.31	1.435			1.435	94.88
2-28-89 #3		3	95.21	1.370			1.370	93.84
2-28-89 #4		4	94.06	1.335			1.335	92.73
2-28-89 #5		5	94.41	1.415			1.415	93.00
2-28-89 #6		6	93.28	1.370			1.370	91.91
3-1-89 #1		7	95.84	1.365			1.365	94.48
#2		8	96.00	1.490			1.490	94.51
#3		9	95.41	1.485			1.485	93.93
#4		10	92.72	1.490			1.490	91.23
#5		11	93.97	1.265			1.265	92.71
#6		12	93.66	1.510			1.510	92.15
3-2-89 #1		13	95.27	1.420			1.420	93.85
#2		14	95.01	1.410			1.410	93.60
#3		15	95.46	1.485			1.485	93.98
#4		16	93.08	1.615			1.615	91.47
#5		17	93.77	1.560			1.560	92.21
#6		18	94.58	1.650			1.650	92.93
3-3-89 #1		19	93.15	1.760			1.760	91.39

Laboratory Analysis

AA - Fire Assay Comparison

Date: 3-8-89

Sample Identification	AA 1st Reading Au	AA 1st Reading Ag		Fire Assay Au	Fire Assay Ag			
Barren 1 2000 3-7-89	TN	.025		TN	.027			
Barren 2 2200 3-7-89	.001	.047		TN	.027			
Barren 1 2400 3-7-89	TN	.025		TN	.035			
Barren 2 0200 3-8-89	TN	.088		TN	.077			

REMARKS:

PBR Minerals
~~Precip~~ Fire Assays

DATE: 3-12-89 Doré Parts

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	% au ~~Troy oz/lot~~ Au	% ag Ag
Engelhard	200mg	1	94.59	1.605				
44274		2	94.08	1.615				
2-27-89		3	94.39	1.625 *				
# 4028	500 MG	4	94.92 ~~96.10~~	Lost				
		5	94.94	1.632 *	ag x 1.005		1.632	93.78
		6	94.94	1.616				
3-5-89 2	200mg	7	96.13				1.360	94.77
3		8	96.92				1.435	95.48
4		9	95.42				1.435	93.98
5		10	95.57				1.420	94.15
6		11	95.65				1.440	94.21
7		12	96.28				1.450	94.83
8		13	95.95				1.435	94.51
3-6-89 1		14	98.02				1.435	96.58
2		15	94.47				1.365	93.10
3		16	97.02				1.365	95.65
4		17	93.03				1.310	91.72
5		18	95.82				1.365	94.45
6		19	93.75				1.330	92.42
7		20	94.90				1.395	93.50
8		21	95.34				1.410	93.93
9		22	97.81				1.450	96.36
3-7-89 1		23	93.23				~~1.330~~	91.90
2		24	96.02				1.330	94.69
3		25	94.00				1.225	92.77

PBR Minerals

~~Precip~~ Fire Assays

Doré Parts

DATE: 3-12-89

Lot# & Date	Sample Weight		Dore' wt.	Mg wt. Au	Ag	Dry wt.	% au Troy oz/lot Au	% ag Ag
Engelhard	200mg	1	94.59	1.605				
44274		2	94.08	1.615				
2-27-89		3	94.39	1.625*				
#4028	500 MG	4	94.92	Lost				
		5	94.94	1.632*	ag x 1.005		1.632	93.78
		6	94.94	1.616				
3-5-89 2	200mg	7	96.13				1.360	94.77
3		8	96.92				1.435	95.48
4		9	95.42				1.435	93.98
5		10	95.57				1.420	94.15
6		11	95.65				1.440	94.21
7		12	96.28				1.450	94.83
8		13	95.95				1.435	94.51
3-6-89 1		14	98.02				1.435	96.58
2		15	94.47				1.365	93.10
3		16	97.02				1.365	95.65
4		17	93.03				1.310	91.72
5		18	95.82				1.365	94.45
6		19	93.75				1.330	92.42
7		20	94.90				1.395	93.50
8		21	95.34				1.410	93.93
9		22	97.81				1.450	96.36
3-7-89 1		23	93.23				1.330	91.90
2		24	96.02				1.330	94.69
3		25	94.00				1.225	92.77

DORE'PURITY ASSAYS -- PBR MINERALS, Inc.

4-2-89

	LOT No.	SAMPLE WT	DORE'	WEIGHT Au	WEIGHT Ag	PERCENT Au	PERCENT Ag
1	3-29-89 3		96.34			2.404	93.94
2	4		96.28			2.482	93.80
3	5		96.30			2.498	93.80
4	3-30-89 1		94.96			2.432	92.53
5	2		94.58			2.454	92.13
6	3		96.84			2.532	94.31
7	4		96.74			2.542	94.20
8	5		96.18			2.538	93.64
9	6		96.62			2.624	94.00

DORE' PURITY ASSAYS -- PBR MINERALS, Inc.

LOT No.	SAMPLE WT	DORE'	WEIGHT Au	WEIGHT Ag	PERCENT Au	PERCENT Ag
3-28-89	56.75 1	1795.00	38.100		10.98'	523.60
~	2	1864.00	38.700			
~	3	1884.00	38.700	1845.30		
3-29-89	579.1 4	1895.00	44.900		13.435	562.48
~	5	1984.00	46.400	1942.60		
~	6	1783.00	42.100			

DORE'PURITY ASSAYS -- PBR MINERALS, Inc.

4-4-89

LOT No.	SAMPLE WT	DORE'	WEIGHT Au	WEIGHT Ag	PERCENT Au	PERCENT Ag
3-31-89 1	500mg	96.00			2.470	93.53
2		96.50			2.464	94.04
3		95.86			2.360	93.50
4		95.20			2.254	92.95
5		97.02			2.292	94.73
6		94.52			2.192	92.33
4-6-89 1		96.02			2.244	92.78
2		93.80			2.182	91.62
3		94.66			2.090	92.57
4		96.26			2.168	94.09
5		95.34			2.028	93.31
6		97.50			2.144	95.36
7		95.86			2.098	93.76
4-2-89 1		94.50			2.014	92.49
44477		92.84			1.884	
3-27-89		93.02			1.848	
#4156		93.32			1.886	
		93.46			1.886	92.03
		93.04			1.832	

EDGE Acid

Weigh-in Par Melt

4662.9 Tr oz

3683.00
61.00

44 1/33

Au

Ag

60.300
3314.70

DORE'PURITY ASSAYS -- PBR MINERALS, Inc.

4-4-89

LOT No.	SAMPLE WT	DORE'	WEIGHT Au	WEIGHT Ag	PERCENT Au	PERCENT Ag
4-2-89 2	500MG 20	97.40	2		2.034	95.37
3	21	95.76			2.090	93.69
4	22	95.84			1.902	93.94
5	23	96.50			1.860	94.64
6	24	96.68			1.882	94.80
7	25	96.96			1.912	95.05
4-3-89 1	26	96.98			1.966	95.01
2	27	96.22			1.936	94.28

DORE'PURITY ASSAYS -- PBR MINERALS, Inc.

4-9-89

LOT No.	SAMPLE WT	DORE'	WEIGHT Au	WEIGHT Ag	PERCENT Au	PERCENT Ag
44541	500 MG	486.00	10.040			
4-5-89	1	484.90	10.040			
#4195		486.90	10.100	476.86	2.020	95.372
		486.10	10.090			
		484.60	10.040			
4-4-89 1		491.50	10.190	481.31	2.038	96.262
2		483.10	4.870	473.23	1.974	94.646
3		488.00	10.540	477.46	2.108	95.492
4		486.50	10.080	476.42	2.016	95.284
5		488.90	10.410	478.49	2.082	95.698

DORE' PURITY ASSAYS -- PBR MINERALS, Inc.

4-11-89

LOT No.	SAMPLE WT	DORE'	WEIGHT Au	WEIGHT Ag	PERCENT Au	PERCENT Ag
4-4-89	6	500 MG 486.40	9.100		1.820	95.46
4-5-89	1	482.60	9.760		1.952	94.57
	2	472.30	9.410		1.882	92.58
	3	482.70	9.570		1.914	94.63
	4	482.10	9.230		1.846	94.57
	5	479.00	8.990		1.798	94.00
4-6-89	1	478.50	8.970		1.794	93.91
	2	486.60	9.410		1.882	95.44
	3	484.30	8.980		1.796	95.06
	4	484.80	8.740		1.748	95.21
	5	487.90	8.840		1.768	95.81
	6	489.00	9.090		1.818	95.98
4-7-89	1	485.20	9.130		1.826	95.21
	2	485.60	9.550		1.910	95.21
	3	487.10	10.460		2.092	95.33
	4	485.10	10.640		2.128	94.89
	5	488.30	10.740		2.148	95.51
4-8-89	1	484.50	9.980		1.996	94.90
	2	478.70	10.150		2.030	93.71
	3	485.40	9.770		1.954	95.13
44519		478.40	10.410			
4-3-89		478.00	10.520			
# 4178		477.20	10.410			
		478.90	10.580		2.116	93.66
		—				

Engraved

ENGELHARD

CUSTOMER NAME P.B.R Minerals

RECEIVING REPORT # 138558

CONTROL # 44624

BEFORE WT. 3145.32 "

AFTER MELT 3132.68 "

SAMPLE 1.225 "

CUST. 1.000 "

SETTLE 3133.905 T.OZ.

David Estrada
SIGNATURE

4-17-89
DATE

EC-1962

ENGELHARD

ENGELHARD INDUSTRIES WEST, INC.
5510 EAST LA PALMA AVENUE
ANAHEIM, CALIFORNIA 92807

DATE 4/17/89 FROM P.B.R. Minerals

VIA Customer CHARGES PAID

CUSTOMER ORDER NO. P.T.

RECEIVING REPORT NO. 138558
CONTROL NO.

REP. LOT ☐ No ☒ Yes

QTY. REC'D.	DESCRIPTION	ITEM	SPEC	FORM	SAMPLE	MD	LOCATION
(2) 5 gallon pail	Ag, Au.						

TOTAL ADVISED WT. G T N

TOTAL ACTUAL WT. G T 8145.32 Troy N

RECEIVING:	YES	NO
Piece Count Difference	☐	☐
Carrier Notified	☐	☐
Weight Difference	☐	☐
Material Damaged	☐	☐
Customer Correspondence	☐	☐
Packing List	☐	☐
Containers Tagged	☐	☐

EXPLANATION:

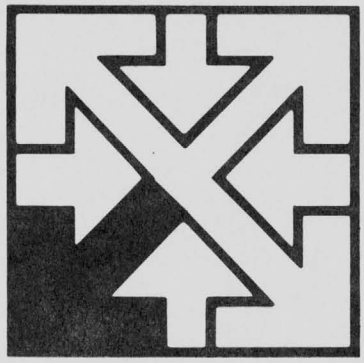
RECEIVED BY: Richard Vargas

OFFICE: DATE NOTIFIED DATE LOT RELEASED

COMMENTS

Melt!

EC-[illegible]1 Rev. 7/85



Southwestern Exploration Associates

COUNTY NOTEBOOK RESEARCH SYSTEM

VOL. 1

GENERAL ARTICLES

CONSULTING SERVICES IN:

literature research
mineral exploration
geothermal exploration
geophysical exploration
multispectral aerial photography
space imagery search and retrieval
image enhancement and processing
remote sensing and interpretation
environmental studies

4500 E. Speedway, Suite 14
Tucson, Arizona 85712
(602) 795-6097

COUNTY NOTEBOOK INVENTORY LIST

Volume 1: County Summary Material

1. Mining District index map with USGS quadrangle overlay
2. County bibliography list with explanations
3. Target listing
4. Listing of all deposits with current exploration status
5. Map indexes to various commodities and a generalized land status map
6. County report by State Bureau of Mines
7. Information on industrial mineral occurrences within the county
8. General articles filed alphabetically, preceded by bibliography list
9. Metal price list

Volume 2: Thesis Material

1. Index map of available theses
2. Theses arranged alphabetically by author

Volume 3: U.S.G.S. Reduced Topographic Sheets

1. Reduced A.M.S. sheets
2. Reduced 7½ and 15 minute quad sheets with list of mines located on each quad sheet

Volume 4: U.S.G.S. Geologic, Geophysical, Geochemical and Open File Maps

1. Index to maps in Volume 4
2. Geologic maps
3. Geophysical maps
4. Geochemical maps
5. Photo index maps

Volume 5: Mining District Notebooks

1. Mining district summary sheet
2. Mint records, mineral resources material, Weed's Copper Handbook (colored sheets separate these sections)
3. Mining district articles listed alphabetically
4. Bibliography
5. Mine summary sheets with geologic data
6. Land status