Arizona Department of Water Resources
Records Management Section
500 N. 3rd Street • Phoenix, Arizona 85004
(602) 417-2405 • (800) 352-8488
www.water.az.gov

Project Completion Report for Mineral Exploration Drilling

- Review instructions prior to completing form in black or blue ink.
- This report should be prepared by the well owner or exploration firm in detail and filed with the Department within 30 days following completion of the project as a whole.

FILE NUMBER: D(4-29)3
WELL REGISTRATION NUMBER: 55-219425

** PLEASE PRINT CLEARLY **

SECTION 1. LOCATION OF WELL

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
4 S	29 E	3	¼	¼	¼

Layne Job# 34-1805 & 1819

SECTION 2. OWNER INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: Phelps Dodge Morenci, Inc
MAILING ADDRESS: 4521 US Highway 191
CITY / STATE / ZIP CODE: Morenci, AZ 85540
CONTACT PERSON NAME AND TITLE: Julian Tellez - Geologist
TELEPHONE NUMBER:
FAX:

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm

NAME: Layne Christensen Co.
DWR LICENSE NUMBER: 7
TELEPHONE NUMBER: 480-895-9336 ext. 7103
FAX:

Hole #'s: 4237

SECTION 4.

DATE DRILLING PROJECT STARTED	DATE DRILLING PROJECT COMPLETED	NUMBER OF HOLES
2-19-08	2-19-09	1

Casing (if installed)

OUTER DIAMETER (inches)	MATERIAL (T) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE
				none

Geologic Log of Well

CHECK ONE
- ☐ Unconsolidated Formation
- ☒ Consolidated Formation:

STATIC WATER LEVEL (IF ENCOUNTERED OR DETECTED): Feet Below Land Surface

SECTION 5. ACTUAL WELL ABANDONMENT DESIGN (if abandoned)

Casing Treatment (if applicable)

DEPTH FROM SURFACE FROM (feet)	TO (feet)	TREATMENT TYPE (T) SONAR JET	BRUSH OR SCRAPE	MILLS KNIFE	CASING REMOVAL (explain in Remarks)	IF OTHER TYPE, DESCRIBE OR IF CASING WAS PERFORATED, DESCRIBE SPACING AND SIZE OF PERFORATIONS THAT WERE ADDED
none						

Sealing or Fill Material

DEPTH FROM SURFACE FROM (feet)	TO (feet)	MATERIAL TYPE (T) NEAT CEMENT	CONCRETE	SAND-CEMENT GROUT	CEMENT-BENTONITE GROUT	SAND-BENTONITE GROUT	HIGH SOLIDS BENTONITE GROUT	CHIPS	PELLETS	SAND	MIXING RATIO by (check one) ☐ Weight ☐ Volume	VOLUME OF MATERIAL USED (cubic feet)
0	20	✓										
20	T.D.						✓					

I state that this report is filed in compliance with A.A.C. R12-15-817(C) and is complete and correct to the best of my knowledge and belief.

TYPE OR PRINT NAME AND TITLE	SIGNATURE OF WELL OWNER OR EXPLORATION FIRM	DATE
Mitchel Daniels Operations Manager	[signature]	3/12/09

ARIZONA DEPARTMENT OF WATER RESOURCES
WATER MANAGEMENT SUPPORT SECTION

3550 N. Central Avenue
Phoenix, Arizona 85012

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-217425

AUTHORIZED DRILLER: LAYNE CHRISTENSEN COMPANY LICENSE NO: 7

NOTICE OF INTENTION TO DRILL A MINERAL EXPLORATION WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: FREEPORT-MCMORAN COPPER & GOLD INC 4521 US HWY 191 MORENCI, AZ 85540

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

¼ OF THE ¼ OF THE ¼ SECTION 3 TOWNSHIP 4 SOUTH RANGE 29 EAST

NO. OF WELLS IN THIS PROJECT: 100

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 19TH DAY OF FEBRUARY, 2009

WATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A LOG OF THE WELL
WITHIN 30 DAYS OF COMPLETION OF DRILLING

GREAT SEAL OF THE STATE OF ARIZONA
DITAT DEUS
1912

ARIZONA DEPARTMENT OF WATER RESOURCES
3550 N. Central Avenue, Phoenix, Arizona 85012
Telephone (602) 771-8500
Fax (602) 771-8691

March 06, 2008

Janet Napolitano
Governor

Herbert R. Guenther
Director

FREEPORT-MCMORAN COPPER & GOLD INC
4521 US HWY 191
MORENCI, AZ 85540

Registration No. 55-217425
File No. D(4-29) 3 000

Dear Well Owner:

Enclosed for your records is an annotated copy of the Notice of Intention to Drill (NOI) and Abandon an Exploration/Specialty Well, which you recently filed with this Department pursuant to A.R.S. § 45-596. This is to inform you that the Department has approved the NOI and has mailed a drilling card authorizing the drilling of the well to your designated well drilling contractor. The driller may not begin drilling until he has received the drilling card, which he must keep in his possession at the well site during drilling.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, you must file a new NOI before proceeding with further drilling. If it is necessary to change the location of the proposed well, you may not proceed with drilling until you file an amended NOI with the Department. A properly amended drilling card will then be issued and must be in the possession of the well drilling contractor before drilling begins.

If this well is being drilled as a heat pump, cathodic protection, or grounding well, or for exploration purposes, our standard Well Driller Report and Well Log form (DWR form 55-55) will be furnished to the well drilling contractor. If this well is being drilled as a mineral exploration well, a Project Completion Report (DWR from 55-57) will be furnished to the well drilling contractor. These forms must be filed with the Department within 30 days after completion of the well. A Pump Installation Completion Report form (DWR form 55-56) is being furnished to the well owner if pump installation is authorized. This must be completed within 30 days of installing a pump as required by A.R.S. § 45-600. During the drilling of a new well, if it is determined that it must be abandoned, then a Well Abandonment Completion Report (DWR form 55-58) must be submitted per R12-15-816(F).

Please be advised that A.R.S. § 45-593(C) requires the person to whom a well is registered to notify the Department of a change of ownership of the well and/or information pertaining to the physical characteristics of the well, in order to keep the well registration file current and accurate. Any change in well information or a request to change well driller must be filed on a Request to Change Well Information form (DWR form 55-71A), which is enclosed for your future use.

Sincerely,

Natasha Conner

Natasha Conner
NOI Unit
Water Management Support Section

Enclosures

Printed on recycled paper. Each ton of recycled paper saves 7,000 gallons of water.

Arizona Department of Water Resources
Water Management Support Section
P.O. Box 458 • Phoenix, Arizona 85001-0458
(602) 417-2470 • (800) 352-8488
www.water.az.gov

Notice of Intent to Drill and Abandon an *Exploration / Specialty* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
- $150 check or money order for the filing fee. Only one Notice of Intent to Drill is required for all wells that are drilled by or for the same person to obtain geophysical, mineralogical or geotechnical data within a single section of land.
- Well construction diagram showing all proposed well construction features listed in Section 5 and the proposed abandonment specifications listed in Section 6.
- Authority for fee: A.R.S. § 45-596.

** PLEASE PRINT CLEARLY **

AMA/INA	B 52 SB
RECEIVED DATE 2/20/08	WS 15
ISSUED DATE	WQARF CERCLA

FILE NUMBER D(4-29)3 000
WELL REGISTRATION NUMBER 55-217425

SECTION 1. REGISTRY INFORMATION

Well Type

CHECK ONE

- [x] Mineral Exploration
- [ ] Geotechnical
- [ ] Heat Pump
- [ ] Cathodic Protection
- [ ] Grounding
- [ ] Other (*please specify*):

COUNTY WHERE WELL(S) ARE LOCATED: Greenlee

Location of Well

WELL LOCATION ADDRESS (IF ANY)

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE	Number of Wells (holes) per 10-acre location
4S	29E	3	¼	¼	¼	100
			¼	¼	¼	
			¼	¼	¼	
			¼	¼	¼	
			¼	¼	¼	
			¼	¼	¼	

Use additional boxes to the right to list 160,40,10 acre descriptions for multiple wells drilled to obtain geophysical or geotechnical data on different 10-acre parcels within a single section of land (160, 40, 10 acre descriptions are not required for mineralogical exploration wells).

SECTION 2. OWNER INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: Freeport-McMoran Copper & Gold Inc.
MAILING ADDRESS: 4521 US Hwy 191
CITY / STATE / ZIP CODE: Morenci, AZ 85540
CONTACT PERSON NAME AND TITLE: Raymond E. Irwin, Senior Geologist
TELEPHONE NUMBER: (928) 865-6270
FAX: (928) 865-3944

Landowner (if different from Well Owner)

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL: Freeport-McMoran Copper & Gold Inc.
MAILING ADDRESS: 4521 US Hwy 191
CITY / STATE / ZIP CODE: Morenci, AZ 85540
CONTACT PERSON NAME AND TITLE: Raymond E. Irwin
TELEPHONE NUMBER: (928) 865-6270
FAX: (928) 865-3944

RECEIVED
FEB 20 2008
WATER MGMT

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm

NAME: Layne Christensen Co
DWR LICENSE NUMBER: 7
ROC LICENSE CATEGORY: 071734 Class A-04
TELEPHONE NUMBER: (480) 895-9336
FAX: (480) 895-9536

Consultant (if applicable)

CONSULTING FIRM: N.A.
CONTACT PERSON NAME:
TELEPHONE NUMBER:
FAX:
E-MAIL ADDRESS:

SECTION 4.

Questions	Yes	No	If Yes:
1. Is the proposed well site within 100 feet of a septic tank system, sewer disposal area, landfill, hazardous materials or petroleum storage area or tank?		NO	You must submit a letter requesting a variance from the 100-foot setback requirement (A.A.C. R12-15-818). However, if the proposed well is a geotechnical well that will be abandoned before the drill rig leaves the well site, a variance may be requested by simply checking the box below. ☐ *I request a variance from the 100-foot setback requirement for a geotechnical well.*
2. If applicable, are you requesting a variance to use thermoplastic casing in lieu of steel in the surface seal?		NO	The wells must be constructed in a vault as defined in A.A.C. R12-15-801(27).
3. Is there another well name or identification number associated with this well?		NO	PLEASE STATE

Notice of Intent to Drill and Abandon an *Exploration / Specialty* Well

WELL REGISTRATION NUMBER 55 - 217425

Provide a well construction diagram showing all existing well construction features listed in Section 5 and the proposed abandonment specifications listed in Section 6. Please submit additional sheets (page 2) and additional well construction diagrams if multiple wells are to be drilled and construction or abandonment details vary.

SECTION 5. PROPOSED WELL CONSTRUCTION PLAN (attach additional page if needed)

DATE CONSTRUCTION TO BEGIN 1/8/08

*** Required Information ***

Borehole DEPTH FROM SURFACE FROM (feet)	Borehole DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)	Casing DEPTH FROM SURFACE FROM (feet)	Casing DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (T): STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (T): BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE IF ANY (inches)
0	1,200	5.5	None													
1,200	1,500	3.02	None													

Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T): NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE: GROUT	CHIPS	PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK: SAND	GRAVEL	SIZE
									None			

SECTION 6. PROPOSED WELL ABANDONMENT DESIGN (Refer to ADWR'S Well Abandonment Handbook for additional information.)

RECEIVED FEB 20 2008 WATER MGMT

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	Casing Treatment TYPE (T): SONAR JET	BRUSH OR SCRAPE	MILLS KNIFE	CASING REMOVAL (explain in Remarks)	IF OTHER TYPE, DESCRIBE OR IF CASING IS TO BE PERFORATED, DESCRIBE SPACING AND SIZE OF PERFORATIONS TO BE ADDED	DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	Sealing or Fill Material GROUT TYPE (T): NEAT CEMENT	CONCRETE	SAND-CEMENT GROUT	CEMENT-BENTONITE GROUT	SAND-BENTONITE GROUT	HIGH SOLIDS BENTONITE: GROUT	CHIPS	PELLETS	SAND	MIXING RATIO by (check one) ☐ Weight ☒ Volume	ESTIMATED VOLUME OF MATERIAL (cubic feet)
						None	0	20	✓										3.3
							20	1,200						✓					198.0
							1,200	1,500						✓					13.0

Proposed Abandonment Method (See Well Abandonment Handbook)

CHECK ONE
- ☒ Standard Method
- ☐ Alternative 1
- ☐ Alternative 2
- ☐ Alternative 3
- ☐ Alternative 4:
  - ☐ Variance Option *
- ☐ Alternative 5:
  - ☐ Variance Option 1*
  - ☐ Variance Option 2*
- ☐ Other (please specify):

* requires a letter requesting a variance

Emplacement Method of Sealing or Fill Material

CHECK ONE
- ☐ Gravity
- ☐ Pressure Grouting
- ☒ Tremie Pumped
- ☐ Other (please specify):

REMARKS

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

TYPE OR PRINT NAME AND TITLE: Raymond E. Irwin, Senior Geologist

SIGNATURE OF WELL OWNER OR EXPLORATION FIRM: Raymond E. Irwin (For Freeport-McMoran) — DATE 2/8/08

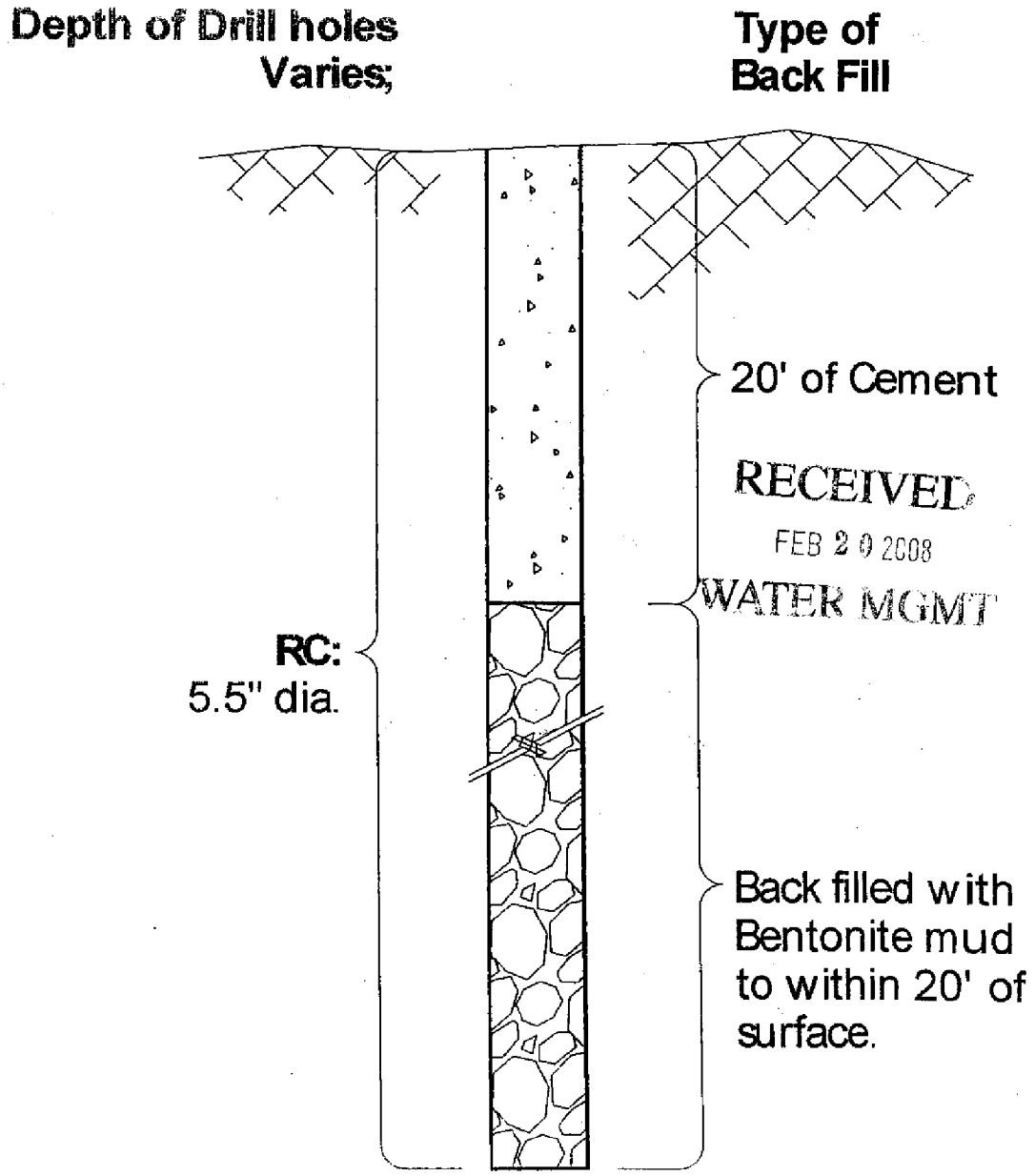
SIGNATURE OF LANDOWNER, IF APPLICABLE (SEE INSTRUCTIONS): Raymond E. Irwin (For Freeport-McMoran) — DATE 2/8/08

88-217425

FREEPORT-McMoRAN COPPER & GOLD

"RC" Reverse Circulation Drill hole

Well Construction Diagram



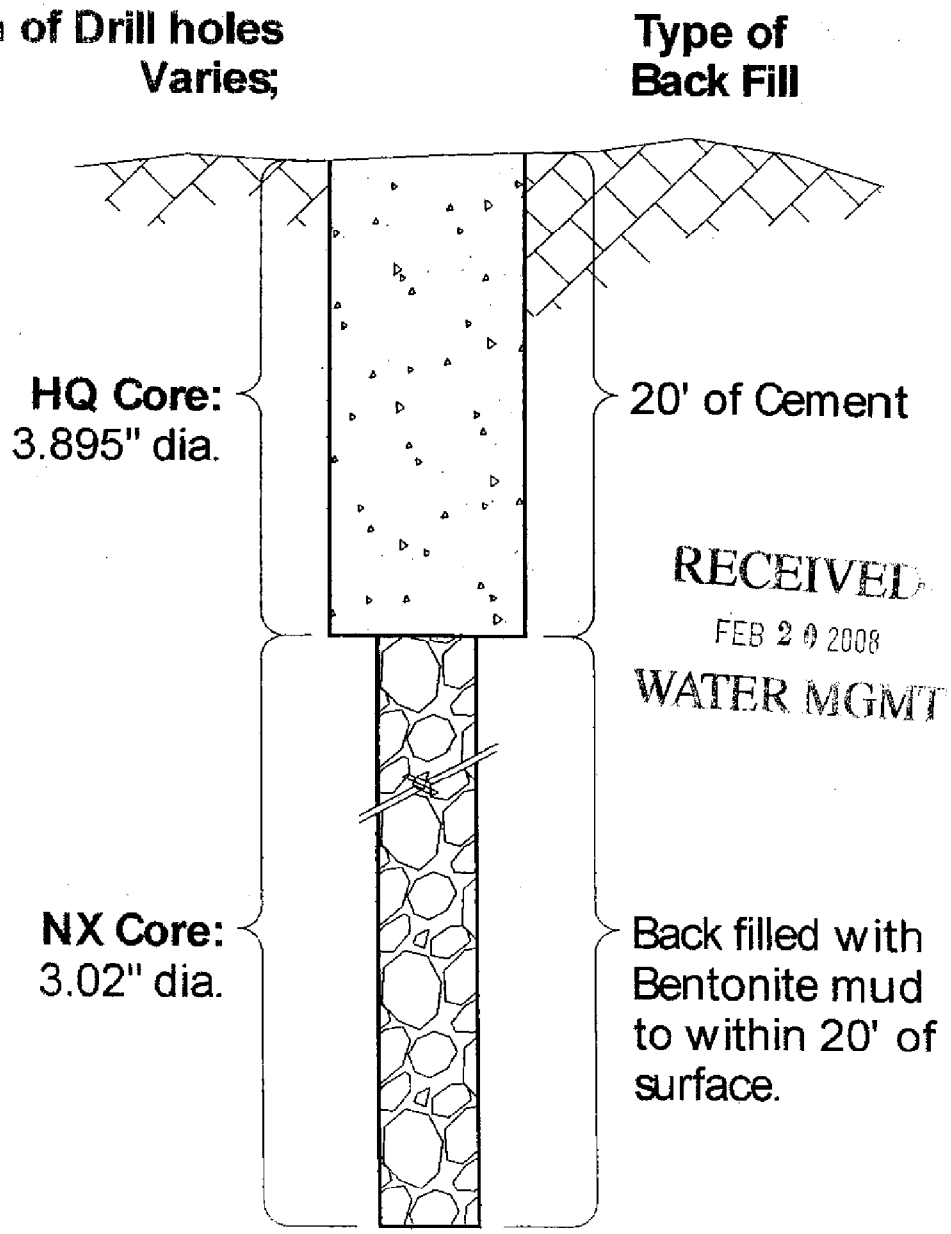
WCDiaCORERC1203.dwg

55- 217425

FREEPORT-McMoRAN COPPER & GOLD

"Core" Drill hole

Well Construction Diagram



RECEIVED
FEB 20 2008
WATER MGMT

WCDiaCORERC1203.dwg

Printed: 2/20/2008 3:25:08 PM

Store 0010
Sale Receipt #
2/20/2008
Page 1

Arizona Department of Water Resources

3550 N Central Ave
Phoenix AZ 85012

FREEPORT-MCMORAN
COPPER & GOLD
4521 US HWY 191
MORENCI,AZ 85540
928-865-6270

Date: 2/20/2008
Cashier: WRPAB
Type: Mail

RECEIVED
FEB 20 2008
WATER MGMT

DCS/INV#	DESCRIPTION		ATTR	SIZE	QTY	PRICE	EXT PRICE
F 72	4439-06	NOTICE OF INTENT TO DRILL WELL	15245		34	150.00	5,100.00

1 Unit(s) Subtotal: 5,100.00

RECEIPT TOTAL: 5,100.00

Tendered: 5,100.00

Check #: 5,100.00 # 049394

FREEPORT-MCMORAN
WELL OWNER

We Appreciate Your Business!