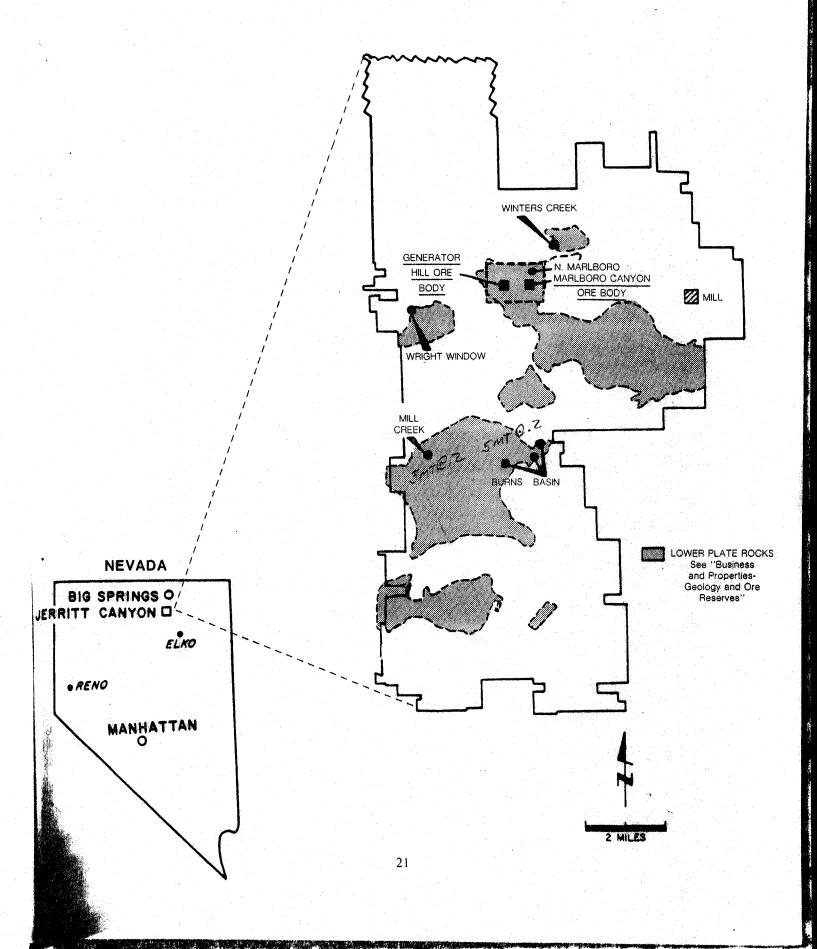
JERRITT CANYON AREA OF INTEREST





BUSINESS AND PROPERTIES

General

The Company is engaged in the mining and processing of gold ore and in the exploration for precious metals and other metallic minerals in the United States and has adopted a program for the extension of its exploration activities into Canada. The Company's revenues have been and for the near term will be derived from the sale of gold from its interest in the Jerritt Canyon mine. The gold in the ore mined and processed at Jerritt Canyon is widely disseminated in submicroscopic form and requires complex processing for recovery. Based on its 1984 gold production and published production data for other gold mines, the Jerritt Canyon mine is the second largest producing gold mine in the United States.

Gold Prices

The profitability of the Company's current operations is directly related to the market price of gold. Gold prices fluctuate widely and are affected by numerous factors beyond the Company's control, including expectations with respect to the rate of inflation, the strength of the dollar and of other currencies, interest rates, global or regional political or economic or banking crises and a number of other factors. The demand for and supply of gold also affect gold prices but not in the same manner as those of the vast majority of other commodities. The supply of gold consists of a combination of new mine production and existing stocks of bullion and fabricated gold held by governments, public and is made up largely of gold produced in past years but still in existence. As the amounts produced in any single year constitute a very small portion of the total supply of gold, variations in current production do not have a significant impact on the supply of gold.

If the Company's realization on gold sales (after giving effect to hedging operations) falls below its cash cost of production and remains at such level for any substantial period, the Company could determine that it is not economically feasible to continue commercial production. The production costs per ounce of gold produced for the Company's operations at the open-pit Jerritt Canyon mine are shown under "Mining and Processing". These costs reflect the Company's favorable ore grade and the open-pit nature of its mining operations.

The volatility of gold prices is illustrated by the following table, which sets forth, for the periods indicated, the high and low gold prices per ounce on the London Bullion Market and the New York Commodity Exchange:

	Lor	ıdon	New	York
1000	High	Low	High	Low
1979	\$526.32	\$216.45	\$534.50	\$215.50
1900	840.34	474.00	875.00	453.00
「金製造品」であることがありまたとともなります。 しゅんしゅんしょく しょくしん	598.00	391.50	599.50	387.50
こうこ 三世 こうりょうりょう とうしゅん かんしょうしょく	488.50	297.00	496.00	295.00
1983	511.50	374.75	514.00	372.00
1984 1985 (through May 21)	406.85	307.25	405.50	304.70
1985 (through May 31)	334.25	285.00	341.00	281.20

On June 26, 1985, the afternoon fixing for gold on the London Bullion Market was \$316.50 and the spot month market price of gold on the New York Commodity Exchange was \$315.70. Gold prices on both the London Bullion Market and the New York Commodity Exchange are regularly published in most major financial and many nationally recognized newspapers.

The Gold Industry

Gold has two main categories of uses, product fabrication and bullion investment. Fabricated gold has a wide variety of end uses, including carat jewelry manufacture (the largest fabrication component), electronics, dentistry, industrial and decorative uses, medals, medallions and official coins.

Purchasers of official coins and high-carat low-mark-up jewelry are motivated by investment, so that net private bullion purchases alone do not represent the total investment activity in physical gold.

The Jerritt Canyon Gold Operations

The Joint Venture with FMC Gold for the mining and processing of gold ore on properties located at Jerritt Canyon, approximately 50 miles north of Elko, Nevada, is operated by the Company pursuant to an agreement (the "Joint Venture Agreement") which provides for the exploration, development, equipping and operation of the properties within the Jerritt Canyon Area of Interest. Each participant has the right to take in kind or dispose of its individual interest in all ore and minerals extracted from the Joint Venture properties. Joint Venture costs are allocated to each participant in proportion to its interest.

FMC Corporation's original interest in Jerritt Canyon, which it assigned to the Joint Venture, was valued in 1976 at \$3,000,000. The Company's 70% interest in the Joint Venture was obtained through the payment of the first \$7,000,000 of costs and capital expenditures incurred with respect to the Joint Venture properties. Since that time, the Company has made capital expenditures at the Jerritt Canyon mine totaling \$90,400,000 through March 31, 1985. The mining and processing facilities at Jerritt Canyon were completed below initial cost estimates and prior to the date scheduled for opening, and the facilities operated at more than design capacity within a few months of the start of commercial operations.

As manager of the project, the Company hires employees and conducts all mining and processing, as well as exploration, drilling and related operations. The Company receives a management fee of 2½% of the gross revenues of the Joint Venture attributable to FMC Gold and is compensated for costs and expenses incurred for the benefit of the Joint Venture, including payroll and overhead expenses (excluding certain senior management costs).

The Company has the authority and responsibility to make most decisions with respect to daily operations. A vote of holders of 75% or more of the participants' interests, however, is required for any budget, program or production commitment and, therefore, the concurrence of both the Company and FMC Gold is required for approval of such matters.

The participants have agreed not to transfer their interests to any non-affiliate without first negotiating in good faith with the other for the sale to it of such interest. This offering does not constitute such a transfer. Unless otherwise terminated by mutual agreement, liquidation, dissolution or insolvency, the Joint Venture Agreement will remain in effect until 2020 and for such longer period as exploration, development or production by the Joint Venture shall continue, unless earlier terminated by liquidation, dissolution or insolvency of either participant or by operation of a provision designed to avoid the rule against perpetuities.

Geology and Ore Reserves

Jerritt Canyon gold mineralization resulted when hot gold-bearing solutions came into contact with rock formations which were chemically and structurally favorable to gold deposition ("host rock"). The flow of these gold-bearing solutions was controlled by breaks in the earth's crust ("faults") which provided conduits for the solutions to migrate upwards. These faults also prepared the host rock formations for gold deposition by breaking and fracturing them enough to allow fluid movement.

The host rock formations at Jerritt Canyon are the late Ordovician to early Silurian-aged Hanson Creek formation (approximately 435 million years old) and the late Silurian to early Devonian-aged Roberts Mountains formation (approximately 395 million years old). The rocks are composed of silts and carbonates which were originally deposited in an ocean basin and later solidified into rock formations which have been faulted, folded and rotated upward into their present position in the central core of the Independence Mountains of Nevada.

Sandstones, cherts, and volcanics were deposited to the west of the Roberts Mountains and Hanson Creek formations in the same ocean basin. The western formations were pushed over the top of

their eastern equivalents along a low angle fault called the Roberts Mountains Thrust. Subsequent uplift and erosion removed patches of the now overlying western units thereby exposing the underlying eastern rocks ("lower plate rocks") through what are termed "windows" in the Roberts Mountains Thrust. The Jerritt Canyon gold mineralization was deposited in one of these windows. There are several other major gold occurrences in northeastern Nevada with similar geologic histories.

The Company has engaged Pincock, Allen & Holt, Inc., an independent mining and geological engineering firm, to verify the Company's ore reserves in the Jerritt Canyon Area of Interest. The report of that firm, dated May 1985, describes the geological structure of the Jerritt Canyon mining area and provides estimates of the Joint Venture's proved and probable reserves. These reserves are set forth in the following table.

The ore reserve estimates presented in the table below and the cut-off grades referred to in footnote (1) are based on a \$350 gold price and current operating costs at the Jerritt Canyon mine. In calculating the grade of ore, sample assays are composited for 20-foot mine benches.

Jerritt Canyon Joint Venture Reserves (1) on December 31, 1984 Verified by Pincock, Allen & Holt, Inc.

	Tonnage (thousand	Average Grade of Ore	Gold Content
Proved Probable Sub total	tons) 9,057.7 1,830.6	(oz./ton) .229 .199	(thousand oz.) 2,072.1 365.0
Sub total Stockpile reserves Total (2)	10,888.3	.224 .168	$\frac{303.0}{2,437.1}$ 114.5
Total (2) Company share (70%)	11,569.6 8,098.7	.221	$\frac{2,551.6}{1,786.1}$

(1) Reserves represent millhead grade ore and do not reflect losses in the recovery process. The recovery rates of gold since commercial production began are shown in the next succeeding table. See "Mining and Processing".

"Reserve" means that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. Reserves are customarily stated in terms of "ore" when dealing with metalliferous minerals.

"Ore" means material, generally of metallic or non-metallic minerals, that can be mined and processed at a profit.

"Proved Reserves" means reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established.

"Probable Reserves" means reserves for which quantity and grade and/or quality are computed from information similar to that used for proved reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proved reserves, is high enough to assume continuity between points of observation.

"Cut-off Grade" means the lowest grade of mineralized rock that qualifies as ore grade in a given deposit, and is also used as the lowest grade below which the mineralized rock currently cannot be profitably exploited. The cut-off grades reflected in the foregoing table are .078 and .092 ounces of gold per ton for low refractory ore and high refractory ore, respectively. "High refractory" and "low refractory" refer to the degree of difficulty and cost of recovering gold from the ores. High refractory ore requires more chlorine in the mill to extract the gold than low refractory ore.

(2) Reserves stated are 100% of the Joint Venture's reserves. The Company's interest is 70% of the total.

During recent months, the price of gold has declined below \$350 per ounce. The Company believes that, if the reserve estimates set forth above were to be recomputed based on current gold prices and current operating costs, there would not be a substantial decrease compared with the reserves estimates shown on the foregoing table.

The table below shows the Company's interest in the proved and probable gold ore reserves and ounces of gold per ton in such reserves, at the end of each of the last five years, as estimated by the Company, and production for such periods. These estimates were based on an assumed gold price of \$450 per ounce, which is the price used by the Company in its historical reporting of reserves. The proved and probable reserves were determined by the use of mapping, drilling, sampling, assaying and other standard evaluation methods generally applied by the mining industry. The total number of ounces of gold contained in reserves verified by Pincock, Allen & Holt, Inc. as of December 31, 1984, based on a \$350 gold price, is 1,786,115 or 5.4% less than the 1,887,600 ounces contained in reserves estimated by the Company as of such date, based on a \$450 gold price. Pincock, Allen & Holt, Inc., has confirmed that based on a \$450 gold price, the Company's calculations with respect to the Company's estimate of reserves as of December 31, 1984 are correct.

	Years Ended December 31,					
	1980	1981	1982	1983	1984	
Reserves at end of year (thousands of tons)						
Proved	7,015	7,136	6.296	8,136	7.985	
Probable	1,261	1,632	1,834	1,467	1,562	
Total	8,276	8,768	8,130	9,603	9,547	
Average grade of reserves (ounce of gold per ton)	0.232	0.231	0.233	0.205	0.197	
Contained gold (thousands of ounces)	1,920	2,025	1,894	1,969	1,887	
Average recovery rate (%)		85.3	84.6	86.5	91.2	
Gold production (thousands of ounces)*		23	137	183	170	

^{*} Gold production for 1981 includes the Company's share of production during the start-up period prior to commencement of operations for financial accounting purposes in October 1981.

Additional Exploration at Jerritt Canyon

The Company carries on exploration activities both within the Jerritt Canyon Area of Interest and outside that Area of Interest. See "Exploration Outside the Jerritt Canyon Area of Interest".

The ongoing exploration in the Jerritt Canyon Area of Interest is conducted by two groups. The first group, consisting of three exploration geologists, is responsible for exploring in the immediate vicinity of the Marlboro Canyon-Generator Hill ore bodies which contain the Company's proved gold reserves and which are currently being mined. This exploration effort is designed to determine through close-spaced stepout drilling whether additional mineable reserves lie within or immediately outside the limits of these known ore reserves. The Company's share of 1984 expenditures for this phase of the Jerritt Canyon exploration program was \$266,000.

The second group, consisting of eight geologists, conducts the Company's on-going exploration program within the Jerritt Canyon Area of Interest, but not within the immediate vicinity of the Marlboro Canyon-Generator Hill ore bodies. This exploration program has just completed the first year of its second three-year program. The first three-year program conducted between 1981 and 1983, during which the Company's share of expenditures was \$5,062,000, emphasized regional reconnaissance mapping together with geochemical analysis and wide-spaced drilling in order to allow the Company to acquire a detailed working knowledge of the regional geologic setting within the Jerritt Canyon Area of Interest. During this first three-year program mineral targets within the upper plate rocks, lower plate rocks, volcanic and hot springs occurrences were tested and a number of mineral prospects of lower grade and smaller size were encountered.

The objective of the second three-year exploration program, initiated in 1984, is to test by close-spaced drilling the mineral targets identified during the first three-year program, in an effort to establish proved reserves averaging in excess of 0.1 ounce per ton. Pursuing this goal the Company employs targets on a 100 foot grid. As a result of this exploration effort, the Company has identified four areas—Burns Basin, Mill Creek, Winters Creek and Wright Window—as worthy of delineation drilling. During 1985 the principal objective of the Jerritt Canyon exploration program is to establish area at Saval Canyon. Finally, in addition to the delineation drilling described above, it is anticipated of Interest to identify promising new geologic targets.

Mining and Processing

At the present time the Company is mining and processing ore from two open pits within the Marlboro Canyon-Generator Hill area. The ore zones are relatively shallow, ranging in depth from the surface to approximately 500 feet with an estimated ratio of 7.2 tons of waste for each ton of ore.

The Joint Venture commenced mining activity on February 11, 1981. The following table sets forth information regarding the Company's share of the Joint Venture's mine production for each of the periods indicated:

	Years Ended December 31,				Three Months Ended March 31,		
Overburden Removed (thousands of tons)	1981	1982	1983	1984	1984	1985	
Stripping Ratio	230	3,279 816	5,674 805	6,891 786	1,220	1,805	
Suipping Ratio	6.4	4.0	7.1	8.8	4.3	11.3	

The stripping ratio will vary from quarter to quarter as different deposits are mined in accordance with the mine development plan.

Essentially the mining process is carried out in three phases: blasting and classification; loading; and hauling. Blast holes are approximately 24-feet deep, 5½ or 6½ inches in diameter, and are drilled on a 12 to 16 foot square pattern. Following blasting, broken material is classified into four categories based on such factors as the refractory nature of the ore and its grade. Following such classification, ore grade material is stockpiled and two types of useable ore are then separately transported and stacked at the mill.

At the mill, the ore is processed in a carbon-in-pulp ("CIP") cyanide leach plant, having first passed through a pre-oxidation circuit for the purpose of oxidizing certain chemical constituents in the ore which otherwise would prevent the dissolution of the gold during the leaching stage.

The first step in the milling process is to blend the ore to achieve an optimum grade and ratio of high-refractory and low-refractory ore types that maximize the efficiency of the pre-oxidation circuit crushed and reduced to a water slurry of which approximately 35% is solid. The ore then enters one of two identical processing circuits through a thickener into a surge holding tank. From the surge tank tion vessels into the CIP circuit where sodium cyanide, lime and activated charcoal are added. During this process, the sodium cyanide causes the gold to separate from the ore and adhere to the charcoal cyanide bath. Powdered zinc is used to precipitate the gold which is then filtered and passed through an acid bath in order to remove the zinc. The resulting gold concentrate is then heated in a vacuum retort furnace to drive off the mercury, resulting in gold dore in form suitable for delivery to gold refiners.

MILL PROCESS FLOWSHEET ORE STOCKPILE **CRUSHING THICKENING** GRINDING CARBON CHLORINATION LEACHING - CIP DORE BULLION **TAILINGS** POND REFINERY

The mill is currently processing approximately 3,500 to 4,000 tons of ore per day. Because of various factors, including improved operating procedures, this processing rate is greater than the originally anticipated design capacity. The Company believes that the mill is being well maintained and that the condition of the mill is not being adversely affected by the greater rate of operation. In spend approximately \$2,900,000 over the next two and one-half years. FMC Gold's approval of these expenditures is required under the Joint Venture Agreement and is being sought. Additional amounts may need to be spent to treat ore which is more refractory than ore currently available for processing at the mill.

Since the mine operates two shifts of 10 hours per day, four days per week, the Company has excess mine capacity which it could utilize by the hiring of additional personnel without purchasing additional equipment.

Studies are also underway to apply heap leaching to the sub-ore grade material produced from the Marlboro Canyon-Generator Hill ore body and some of the other geological resources identified by the exploration group as described under "Additional Exploration at Jerritt Canyon". It is estimated that the heap leaching will require capital expenditures by the Company of approximately \$1,400,000. If heap leaching is undertaken, gold production will be increased without expanding mill capacity and expansion and heap leaching may require modification of sub-ore grade material. The planned "Regulation".

Certain of the processes employed by the Company are carried out pursuant to a licensing agreement between the Company and an FMI subsidiary, under which the Company has a non-exclusive, non-transferable license. Certain features of these processes, such as the controlled oxidation pretreat-ment, the simultaneous leaching and carbon adsorption and special carbon desorption techniques, are patented. The last of the three patents licensed expires in 2002. The Company does not believe that its operations will be adversely affected by the termination of these patents. Prior to May 31, 1985 the Company paid a technology royalty of 2½% of its gross revenues from the sale of gold produced at the Jerritt Canyon facilities. The Company paid \$1,285,000, \$1,936,000 and \$1,510,000 in 1982, 1983 and 1984, respectively, for the use of such patents and technology and is not obligated to make any future royalty payments.

The following table sets forth information as to the Company's total costs per ounce of gold for the periods indicated:

Costs Per Ounce of Gold(1)

	Years Ended December 31,			Three Months Ended March 31,		
Cash Production Costs General and Administrative Expenses Management Fee from FMC Gold(2) Total Cash Costs, net of management fee Depreciation and Amortization	1982 \$159.17	1983 \$126.17 15.38 (4.45) \$137.10 64.27	1984	1984 \$164.32 21.59 (4.18) \$181.73 64.65	1985 \$175.29 27.21 (3.21) \$199.29	
Total Costs	\$231.75	\$201.37	\$241.02	\$246.38	<u>56.14</u> <u>\$255.43</u>	

⁽¹⁾ Excludes technology royalty (not payable after May 31, 1985) to FMI of \$9.43, \$10.38 and \$8.90 per ounce for the years ended 1982, 1983 and 1984, respectively, and \$9.70 and \$7.58 per ounce for the three months ended March 31, 1984 and 1985, respectively.

⁽²⁾ Reflected in "Other income (deductions), net" caption of Freeport-McMoRan Gold Company and Affiliates Combined Statements of Income included elsewhere in this Prospectus.

With respect to the three months ended March 31, 1985, see "Management's Discussion and Analysis of Financial Condition and Results of Operations". Cash production costs per ounce of gold include mining, processing and maintenance expenses. These costs will fluctuate depending upon the grade and volume of ore processed and the recovery rate. See "Summary Operating Data". If the price of gold increases, the Company will be able to recover gold from materials which it would otherwise not be able to process, thereby increasing its reserves. Use of such lower grade materials will increase the relative cost per ounce of gold produced. Decreases in the price of gold would have opposite results. Assuming no change in processed ore tonnage or grade, for each dollar change in the price of an ounce of gold, the Company's pre-tax cash flow will be correspondingly changed by one dollar per ounce of gold.

Maintenance

The operations of the mine and mill require significant maintenance work because of the continuous and vigorous nature of such operations. Routine maintenance of mine operating equipment includes, for example, oil, hydraulic fluid and tire changes and inspection, repair and replacement of dozer blade cutting edges, ripper points and shovel dipper teeth. Equipment in the mill, on the other hand, requires specialized technicians and sophisticated maintenance equipment because the mill is highly mechanized and computerized. The Company's operations at the Jerritt Canyon properties require approximately one maintenance worker to support every two production workers.

Maintenance facilities include three specialized shops housed in two buildings, one at the mine and one at the mill. The mine shop inspects and repairs all track-mounted equipment such as dozers and drills. At the mill, one shop maintains all wheeled equipment, such as trucks and graders, for the mine, and another provides mechanical and electrical instrumentation maintenance for the mill.

Waste Disposal

Waste tailings from the mill are currently pumped into a tailings pond which is located approximately one mile from the mill. As of December 31, 1984, the Company estimated that at the then current production rate the tailings pond would be filled to capacity in 1995. The Company is studying additional tailings storage areas which were identified in the original Environmental Impact Statement. The pond currently has a zero discharge permit from the State of Nevada which administers the National Pollution Discharge Elimination System ("NPDES") program in Nevada.

Under the requirement of its NPDES permit, the Company monitors wells located immediately adjacent to the tailings dam in order to obtain early warning of any leakage of contaminants from the pond. In early 1984, the presence of contaminants in the shallow monitoring wells was discovered. The Water Quality Division of the Nevada Department of Environmental Protection was notified of these findings. In addition, the Company with the assistance of outside hydrological consultants has undertaken an evaluation to determine the nature and extent of the contaminants in ground water from this site. Preliminary data indicate that the seepage of contaminants is probably limited to shallow depths in a local and limited area in the vicinity of the tailings dam. Studies of the extent of the contaminants have not been completed and no cost estimates for remedial action have been made. The Company does not anticipate, however, that such costs will have a material adverse effect on the Company.

Insurance and Mining Risks

The Company is covered by insurance against property damage including boiler and machinery insurance, and also is covered by comprehensive general liability insurance. It is also insured against losses from dishonesty, including theft of gold, as well as losses of other goods in transit and against business interruption to the extent of policy limits. The Company has insured against losses from some but not all environmental risks. From time to time, the Company reviews its insurance coverages and may obtain additional policies or cancel existing policies as it deems appropriate.

Refining and Marketing

In order to take advantage of the benefits provided by Sections 921 through 927 of the Internal Revenue Code of 1954, as amended (the "Code"), for sales outside the United States through a foreign sales corporation of products produced in the United States, the Company and FMC Gold have entered under the laws of the United States Virgin Islands ("Freeport/FMC Foreign Sales"), to promote the exportation of gold on behalf of the Joint Venture. The Company and FMC Gold own, respectively, 921 through 927 of the Code result in the exclusion from Federal income taxation of a portion of the sincome earned with respect to the sale outside the United States of products produced in the United States. The portion to be excluded varies with the circumstances but it is expected that approximately gold sales) will not be subject to Federal income taxation. The Company currently plans to maximize non-United States sales in order to take advantage of this tax benefit. Present proposals to simplify the tax system, however, could result in the termination or significant reduction of this benefit.

The Company currently has a refining agreement with a domestic refiner and the Joint Venture has a refining agreement with a foreign refiner. These agreements provide that, at the election of the Company or the Joint Venture, as the case may be, the refiners are obligated either (i) to refine and return the gold contained in the dore bullion at fixed refining charges or (ii) to purchase such contained gold at world prices prevailing during the pricing periods selected by the Company or the Joint Venture under the agreements, less a deduction for refining charges. The Company believes that, because of the availability of several alternative refiners each able to supply all of such services needed by the Company, no adverse effect will result should the Company lose the services of its current refiners.

In order to hedge the prices of a portion of its future gold shipments, the Company from time to time sells gold forward under futures or cash forward contracts or purchases put options on gold. The results of such contracts and options are reflected in gross sales at the time related gold shipments are made. See "Certain Considerations—Contractual Arrangements".

The following table shows the results of hedging activities for the periods indicated:

Hedging Results

	Years Ended December 31,				Three Months Ended March 31.		
Net Hedging Gains	1981	1982	1983	1984	1984	1985	
(Losses)	\$114,000 ———	\$1,819,000	\$(3,849,000)	\$1,660,000 (394,000)	\$ — (111,000)	\$379,000 (89,000)	
(Loss)	\$114,000	\$1,819,000	<u>\$(3,849,000)</u>	<u>\$1,266,000</u>	<u>\$(111,000</u>)	\$290,000	

At March 31, 1985, the Company had 33,400 ounces of gold sold forward at an average price of \$330.50 and held put options for 28,000 ounces at an average exercise price of \$320 and at an average cost of \$4.10 per ounce. The average month-end sale price for these open forward contracts was \$343.80 at March 31, 1985. At March 31, 1985 the put options were trading at approximately \$6.60 per ounce. In the past, the Company has hedged approximately 50% of its planned gold shipments for the ensuing 12 months. This pattern has been continued during the first half of 1985. Prior to 1984 the Company hedged by selling gold forward under futures or cash forward contracts which require the Company to deliver the actual quantity of gold sold forward or to settle by paying in cash the amount by which the market price at the time for delivery exceeds the price set under the contract for forward sale or by receiving in cash the amount by which the price set under the contract for forward sale exceeds the market price at the time for delivery. Beginning in 1984 the Company expanded its

hedging activities to include the purchasing of put options on gold to assure a particular price for a portion of its future shipments. The use of put options, as contrasted with forward sales, allows the Company to benefit from increases in the price of gold. Future decisions with respect to purchases of put options and forward sales will depend upon the cost of put options, gold market conditions and assessments of price risk.

Gold price volatility can have a significant impact on results of hedging activities. While hedging decisions reflect, in part, a view of the market, a major objective in any hedging decision is to establish a floor price. A hedging transaction results in losses if the hedged price is less than the price realized at the time of settlement. For example, during the early part of the second half of 1982, the Company entered into forward sales contracts to hedge approximately 50% of estimated 1983 production, and by year-end 90,000 ounces had been sold forward to the first half of 1983 at an average price of \$372 per ounce to protect against the risk of price declines. During the latter part of 1982 and into 1983, gold prices escalated. At December 31, 1982, the average future settlement price for these contracts was approximately \$470. Consequently, settlement of these contracts resulted in the net 1983 hedge loss of \$3,849,000.

Exploration Outside the Jerritt Canyon Area of Interest

In addition to the exploration program being conducted within the Jerritt Canyon Area of Interest, the Company conducts several ongoing exploration programs in other parts of Nevada and elsewhere in the United States for precious metals (gold, silver and the platinum group). Precious metals are frequently discovered in deposits which also contain base metals, particularly copper, lead and zinc which, if discovered by the Company, would be developed provided it was economic to do so. The objective of the Company's exploration programs is to replace current reserves with new reserves and provide opportunities for new investment or acquisition by the Company.

The exploration programs may be terminated at any point at which economic analysis of a particular prospect or testing results do not appear satisfactory. Typically it takes from five to ten years between the initial phases of drilling until commercial operations are commenced. No assurance can be given that any of the Company's exploration activities will result in commercial mining operations.

In most cases, an individual exploration program initially involves the identification of prospective areas in which a target commodity may be located. This research effort includes analysis of a variety of sources, such as academic and governmental publications, as well as the use of aerial photography and other remote sensing techniques. Prospective areas may also be identified by submissions from independent prospectors, other mining companies or other sources. After permission is obtained from any owners of private property upon which the prospects may be located, prospective areas are explored through field mapping, collection and analysis of surface rock and soil samples, and geophysical survey techniques, if applicable to the geologic formation.

The object of these activities is to identify mineral assemblages, physical structures or other characteristics appearing to be analogous to previously discovered ore bodies containing precious metals. In the event that such reconnaissance techniques identify areas which contain anomalous values of precious metals, or other minerals which are often associated with the occurrence of precious metal deposits, the Company will consider applicable economic and environmental factors and, if appropriate, will seek to acquire mining rights on the particular property by staking mining claims, entering into joint ventures, purchasing or leasing private property or acquiring other companies. Drilling targets will then be selected and drilling conducted to determine the presence of mineral values. Should such values be present in significant quantities or if other favorable geologic data are revealed, drilling might be continued.

In the event that the initial phases of drilling indicate the possibility of a commercial mineral deposit, substantial expenditures may be made to establish ore reserves through additional drilling and to develop metallurgical processes to extract the metals from the ore. There can be no assurance that a mineral deposit can be profitably mined until ore reserves are established, a commercially viable

processing technique is identified, governmental permits and approvals are obtained and mining, processing and capital costs are determined. Commodity price fluctuations may render the mineral deposit unprofitable even after the satisfactory completion of an exploration program.

Assuming the satisfactory completion of an exploration program and a commodity price range sufficient to economically justify the development of the deposit, the Company would need to make substantial pre-production expenditures for construction of mining and milling facilities at the chosen site.

The Company conducts its United States exploration program through five districts which are coordinated at its main exploration office located in Reno, Nevada. Personnel assigned to each district concentrate on a selected group of geographic locations.

The Company currently has two advanced exploration projects, the Big Springs Project located 12 miles north of the Company's Jerritt Canyon properties in Elko County, Nevada, and the Manhattan Project located 40 miles northeast of Tonopah in Nye County, Nevada.

The following table sets forth the Company's share of the mineral exploration expenses associated with United States and Canadian precious metal and other metallic mineral exploration activities of FMI and its subsidiaries for the years 1982, 1983 and 1984 and an estimate of these expenses for 1985. These expenses are reflected in "Combined Statements of Income."

	Historic			Estimated
	1982	1983	1984	1985
Joseph Community Co.				
Jerritt Canyon Area of Interest. Other U.S. Exploration:	\$1,940	\$ 1,538	\$ 2,069	\$ 2,200
Big Springs	319	614	842	1,025
wannattan	67	318	419	200
Other exploration targets Canadian studies and exploration	5,149	6,202	7,636	6,193
Research and Development(1)	205			650
Wille Engineering Support	395	55	809	· · · · · · · · · · · · · · · · · · ·
Supervision and Administrative Support(2)	336	360	741	320
To the real months of the support (2)	1,342	1,537	1,661	2,312
Total	\$9,548	\$10,624	<u>\$14,177</u>	\$12,900

⁽¹⁾ Represents research and development activities performed by a subsidiary of FMI not allocated to specific exploration projects for the three years ended December 31, 1984. Effective January 1, 1985, research and development costs will only be charged to the Company as incurred on a specific project basis.

Big Springs Project

The Big Springs Project is located on approximately 6,320 acres of unpatented mining claims held by Bull Run Gold Mines, Ltd. ("Bull Run"). Bull Run and the Company are parties to an agreement which provides for the exploration and, if warranted, the development of and conduct of mining operations on Bull Run's mining claims. The agreement provides that the Company may earn a 60% interest in the properties by expending \$2,500,000 for exploration work. Through March 31, 1985, approximately \$1,900,000 had been spent by the Company. The Company anticipates that the remaining \$600,000 necessary for vesting will be expended by the end of the summer of 1985.

⁽²⁾ The costs reflected here have been allocated pro rata to United States mineral exploration expenses on the basis of direct United States exploration to total worldwide exploration costs rather than on the basis of time records. FMI plans to allocate such expenditures in the future on the basis of time records and the Company anticipates that such revised allocation procedures may in the future result in higher costs being charged to it.

By the end of the 1984 field season, the Company had drilled 457 exploratory and delineation holes which defined four areas—North Sammy Creek, South Sammy Creek, Mac Ridge, and West End Jasperoid—as containing commercial grade mineralization amenable to open-pit mining. North Sammy Creek and South Sammy Creek have been intensely drilled with 350 holes on 100 and 200 foot centers. Of the four sites, North Sammy Creek has provided the best grade and continuity of gold mineralization to date. Delineation drilling is scheduled at North Sammy Creek for the 1985 field season. Fill-in drilling on 100 foot centers and peripheral exploration drilling are also scheduled to be completed on the other three zones during the same field season to ascertain whether reserves can be established.

In addition, reconnaissance work has identified nine other targets within the Bull Run properties warranting continued exploration. Metallurgical analysis is currently underway, and preliminary results indicate that extensive treatment may be required to liberate the gold from the Big Springs ore. The feasibility of the project will hinge significantly upon the outcome of metallurgical testing.

Manhattan Project

The Manhattan Project consists of approximately 4,400 acres of federal and private land upon which the Company has either staked claims or has acquired an option to purchase. The Company has the option of acquiring a 100% interest in most of the project area by paying \$1,253,000 to the property owners. To date, 15 drill holes have been drilled to test the target, which is a gold-bearing vein which would require underground mining. Mineralization in excess of 1.0 ounce of gold per ton has been intercepted by several of these holes. While the continuity and size of the mineralized zone have not been determined, the Company believes initial results are favorable and additional drilling is currently being conducted.

Exploration has not been completed at either the Big Springs or the Manhattan Project and, therefore, there can be no assurance that gold will be produced from either Project.

Other United States Projects

In addition to the Big Springs and Manhattan Projects, the Company is currently conducting active exploration at a number of additional sites located principally in the western United States. About 18 to 24 exploration projects are active at any given time. During 1984, approximately 50 individual sites were examined.

Canada

A preliminary study of the opportunities for the Company to participate in mining and exploration in Canada was recently concluded. The Company intends to examine further the opportunities for the acquisition of interests in precious metal and other metallic mineral properties in Canada. The Company believes that it may be able to offer its technical expertise and resources to small independent Canadian prospecting companies in exchange for interests in mineral prospects held by such companies. No acquisitions of specific Canadian mineral prospects are currently under consideration. The Company also intends to apply its expertise in exploration for disseminated gold in certain areas of western Canada.

Property Interests

Most of the Company's exploration activities are conducted within thirteen states in the western United States. Mineral interests may be owned in these states by (i) the United States, (ii) the state in which the resource is located or (iii) private parties. Where prospective mineral properties are owned by private parties or by states, some type of property acquisition agreement will be necessary in order for the Company to explore or develop such property. Generally these agreements take the form of long-term mineral leases under which the Company acquires the right to explore and develop the property in exchange for periodic cash payments during the exploration and development phase and a royalty, usually expressed as a percentage of gross production or net profits derived from the leased

properties. Other forms of acquisition agreements are exploration agreements coupled with options to purchase and joint venture agreements. Under a typical joint venture agreement, the Company will acquire an undivided interest in the mineral properties (usually more than 50%) in exchange for the performance of a certain amount of exploration and development work on the property. Upon the vesting of the Company's interest in the properties, the Company and the other party will enter into a property with both parties contributing to the costs of development and operations and sharing in the production from the properties in proportion to their undivided interests.

In addition to the acquisition of mineral rights held by states or third parties, the Company also may acquire mineral rights from the United States through the location of unpatented mining claims upon unappropriated federal land pursuant to procedures established by the General Mining Law of 1872 and the Federal Land Policy and Management Act of 1976 ("FLPMA"). These acts generally provide that a citizen of the United States (including corporations) may acquire a possessory right to develop and mine valuable mineral deposits discovered upon unappropriated federal lands, provided that such lands have not been withdrawn from mineral location, e.g., national parks, military reservations and lands designated as part of the National Wilderness Preservation System. Deposits of precious metals in which the Company is interested may be acquired through the location of mining claims; however, Congress has the power to remove minerals from the location system prospectively and has done so in the case of oil, gas, coal, oil shale, common varieties of sand, gravel and stone, and other minerals. The acquisition of a valid mining claim on federal lands requires (1) discovering a valuable mineral deposit, (2) erecting a monument and posting a location notice at the point of discovery, (3) marking the boundaries of the claim in accordance with federal law and the laws of the state in which it is located and (4) filing a Certificate of Location with the Bureau of Land Management and the Recorder of the county in which the claim is located. Failure to follow the required procedures may render the mining claim void or voidable.

If the statutes and regulations for the location of a mining claim are complied with, the locator obtains a valid possessory right to develop and produce minerals from the claim. This right can be freely transferred and is protected against appropriation by the government without just compensation. Also, the claim locator acquires the right to obtain a patent (fee title) to his claim from the federal government upon compliance with certain additional procedures.

Unpatented mining claims possess some unique vulnerabilities not associated with other types of property. For example, in order to maintain each unpatented mining claim, the claimant must annumust file with the state and federal government an affidavit attesting to the performance of such work. Failure to perform such work or make the required filings will render the claim subject to being sophisticated void. Because mining claims are self-initiated rights, they are often located with less than difficulty in determining the validity and ownership of certain mining districts, may result in great interpreted by the federal government, in order for an unpatented mining claim to be valid, the claimant has the burden of proving that the mineral occurrence on which it is based can be mined at a profit at the time the claim is located and at all times thereafter. Thus, it is conceivable that, during the federal government.

No generally applicable title opinions or title insurance has been obtained with respect to the Company's unpatented mining claims and the Company has no present intention of seeking such title opinion or title insurance. The Company believes, however, that all of the unpatented mining claims in which are contained the reserves at Jerritt Canyon are valid and that substantially all of the unpatented mining claims with respect to exploration properties, which it has either located itself or acquired from private parties are valid. The Company continually reviews its claim holdings to satisfy itself of their validity and to correct any apparent defects.

The amount of federally managed public lands which are open to mineral entry under the General Mining Law of 1872 is continually being limited by the withdrawal or segregation of such lands for other purposes. The U.S. Forest Service and the Bureau of Land Management are currently analyzing the federal lands which they manage to determine the extent to which such lands may be appropriate for inclusion in the National Wilderness Preservation System ("NWPS"). Although mining claims located on lands subsequently designated as part of the NWPS may be developed under stringent environmental regulations, the creation of mining claims after such designation is not permitted. These and other withdrawal and segregation programs may substantially limit the amount of land in the western United States which is available for the Company's exploration efforts.

The Company's property holdings include:

Jerritt Canyon—Within the nine full townships which make up the Area of Interest, the Joint Venture has located and leased approximately 3,360 claims covering approximately 105.8 square miles and has leased approximately 9.3 square miles of land from private parties. In connection with this property the Joint Venture has entered into an agreement with Rancho Grande, Inc. which grants to the Joint Venture through 1994, an easement for vehicle access to the Jerritt Canyon mill site across Rancho Grande's property, a power line right-of-way and certain rights to develop and produce water used in the Joint Venture mining and processing operations.

Big Springs—Within the area of interest specified by the joint venture agreement of the Company with Bull Run, the joint venture has located 306 unpatented mining claims covering approximately 9.9 square miles.

Manhattan—With respect to the Manhattan property, the Company has located or acquired options to purchase approximately 213 patented and unpatented mineral claims covering approximately 6.9 square miles.

Most of the properties which the Company acquires as part of its exploration program are ultimately disposed of either by abandoning unpatented mining claims or terminating leases, exploration agreements or joint venture agreements, as the case may be. Occasionally, the Company's exploration results in the discovery of mineralization which due to its quantity, grade or other characteristics is not of interest to the Company but which may be of interest to other mining companies. In such cases, the Company will attempt to sell, lease, sublease, enter into a joint venture or otherwise farm out such properties in the hope of obtaining some economic return. Five of the Company's projects have been subleased to other mining companies in exchange for cash payments or overriding royalties. The Company is currently neither owed nor receiving any income from these agreements. There is no obligation on the part of the companies to which the properties have been leased to place the properties in production, and they may return the properties to the Company or abandon them at any time.

Employees

As of May 31, 1985 the Company had approximately 360 employees. None of the Company's employees are represented by unions or covered by collective bargaining agreements, although a number of comparable operations in Nevada are unionized. Benefit programs provided by FMI for qualified employees of the Company include a funded retirement plan, 401(k) savings plan, group health and hospitalization insurance and paid vacations. The Company believes that its employee relations are satisfactory.

There are approximately 300 employees working on site at the Jerritt Canyon properties at any one time including approximately 40 administrative personnel, 80 mill workers, 80 mine workers, 80 maintenance workers and 20 geologists and engineers. The Company expects that, in general, its employment levels will be slightly higher in the summer months when field exploration activities are conducted and various outside construction projects are customarily undertaken.

In addition to personnel engaged in the Company's mining and processing operations, it has approximately 60 employees involved in exploration, including 42 geologists.