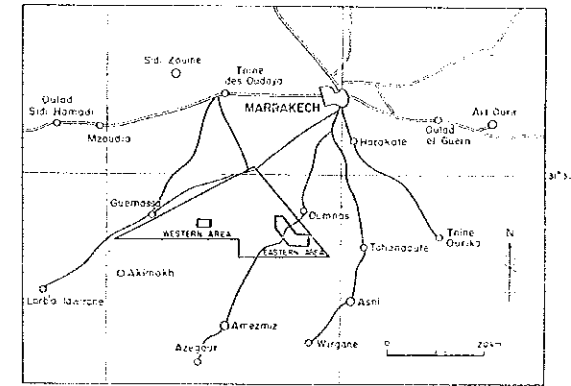
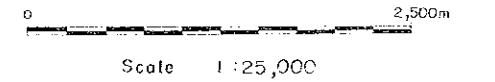


COOPERATIVE MINERAL EXPLORATION
IN
HAGUZ CENTRAL AREA, MOROCCO
(PHASE II)

Map of Geophysical Interpretation

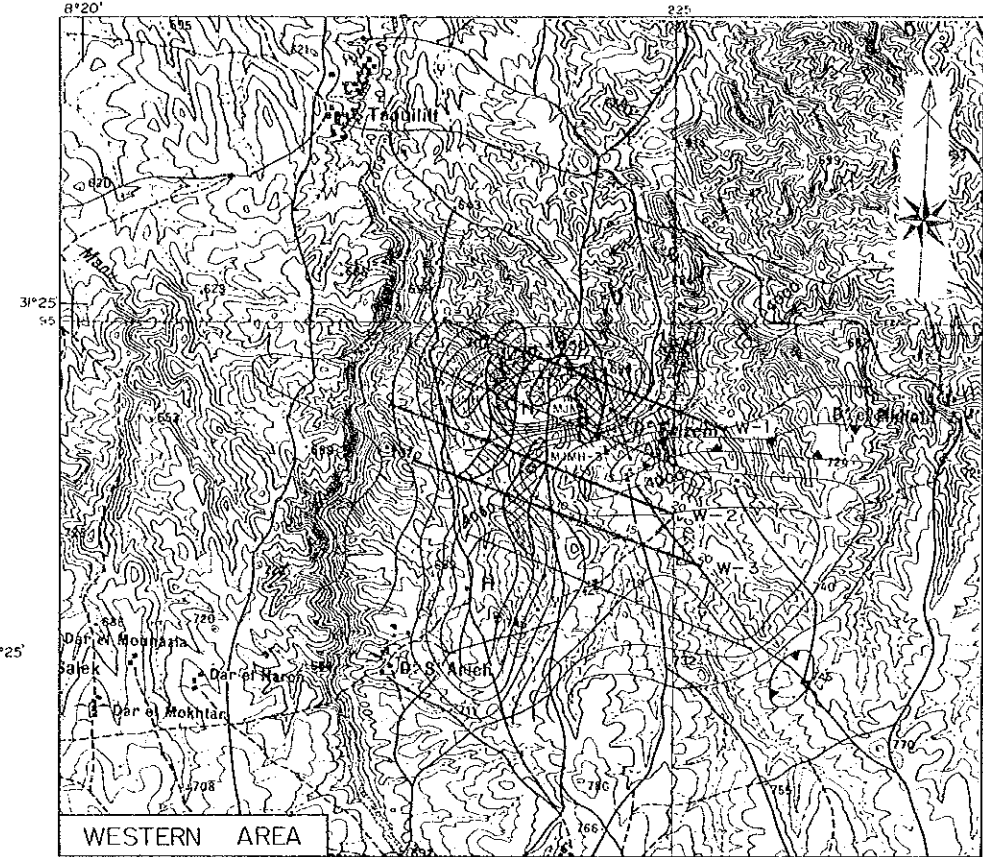
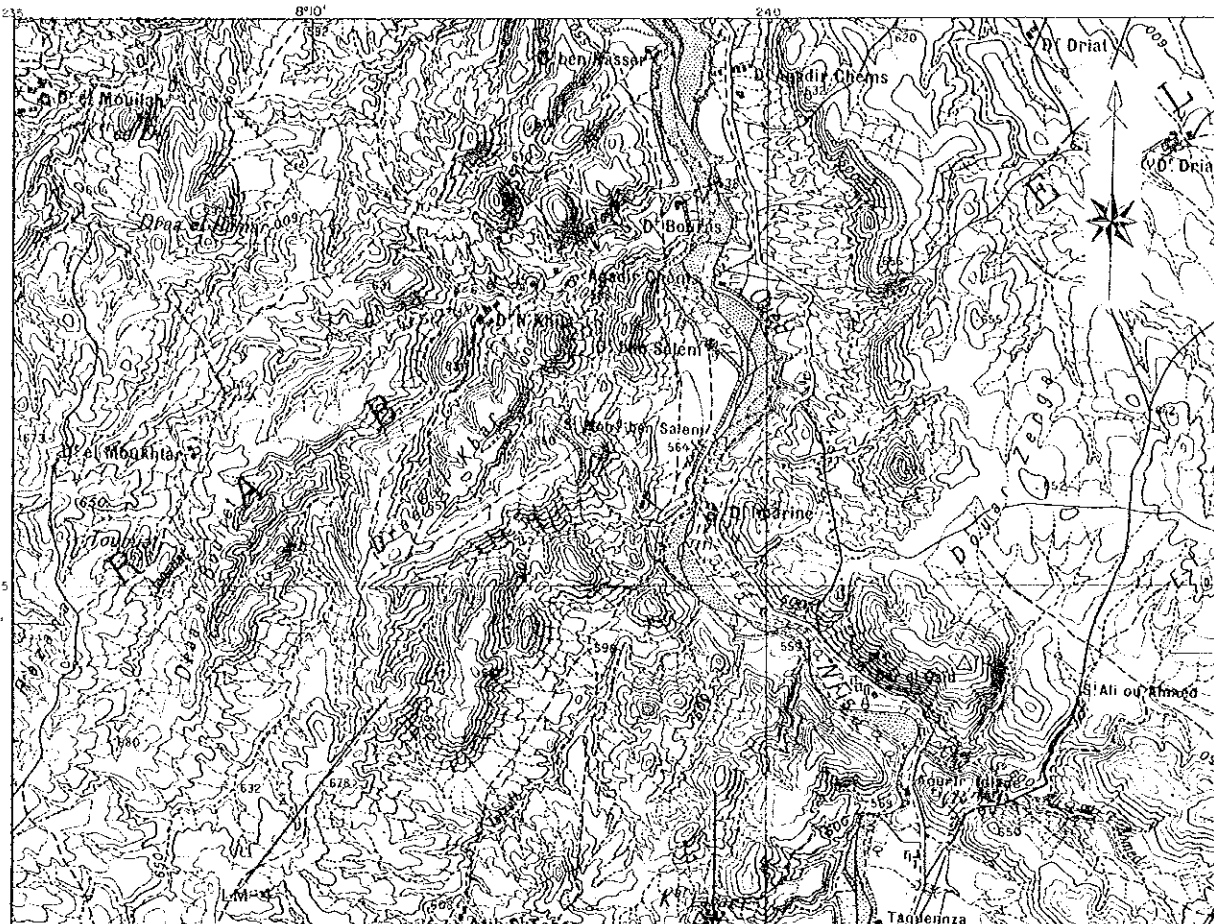


JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRUARY 1990
Prepared by MINDECO

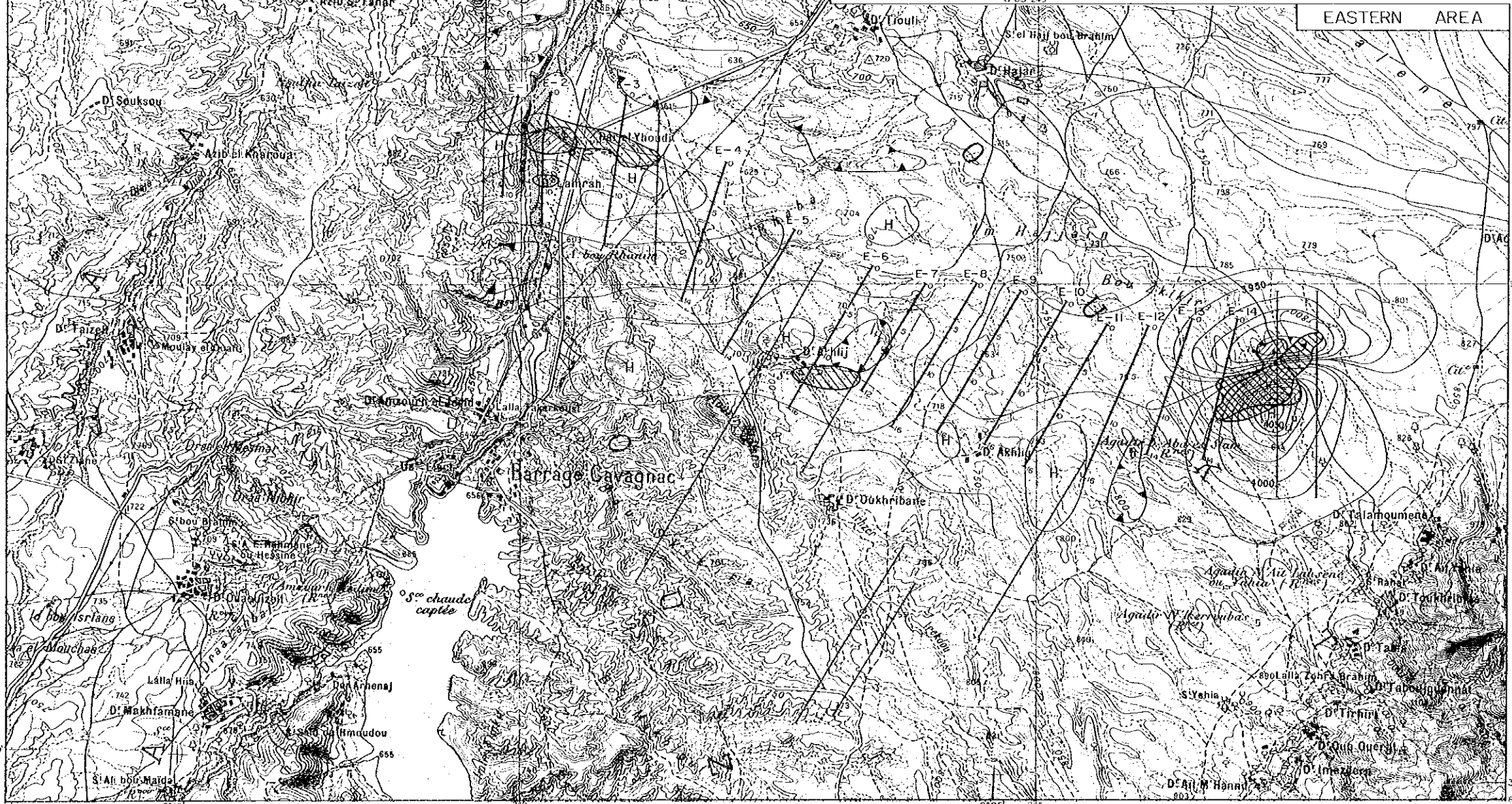


LEGEND

- E-8 5 Line Number
Station Number
IP Survey Line (Phase II)
- IP Survey Line (Phase II)
- MJM-1 Boring Site
- Low Apparent Resistivity Anomaly
Eastern Area : n=5, $\leq 40 \Omega \cdot m$
Western Area : n=5, $\leq 60 \Omega \cdot m$
- High PFE Anomaly
Eastern Area : n=5, $\geq 4\%$
Western Area : n=5, $\geq 5\%$
- Low Magnetic Anomaly
- High Magnetic Anomaly



WESTERN AREA



EASTERN AREA

GEOLOGIC DRILL LOG

HADUZ PROJECT, MOROCCO
(FRIZEM AREA)

Coordinate N 94.050 Direction
E 224.120 Inclination -90
Elevation 712 m Total Depth 400.80m

DDH No. MJMH-3
Inclination -90
Total Depth 400.80m

Assays					Depth-Symbol					Occurrence					Observations
Dep (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Dep (m)	Core Sym	Str.	Rock	Fac	Attr	Min	Color	Fract		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					8.0			Phy	oxd cly	Lim	brn-gry				Phyllite intercalated with Silt thin bed.
					10.0			40°	Phy	oxd cly	Lim	gry			
					20.0			40°	Phy	oxd cly	Lim	gry			
					27.3			55°	All	oxd cly	Lim	brn-gry			
					30.0			55°	All	Qtz carb (vsl)	gry				30.0-30.4 : Cty 31.1-31.7 : Qt v 3cm 80° All (Phy-Silt) Intv : 1mm-1cm-50cm Phy is blk-d-gry Sills is wht-p-gry, and tuffaceous
					40.0			45°	Phy	sid	Cu-Py	blk			Srd vs diss with Cu-Py 48.6 : Cu-Py Carb vs parallel toted 0.5cm 30°
					50.0			25°	Phy	cly	gry	crsh			
					56.3			30°	Phy		gry				
					60.0			45°							
					63.0			30°	All		gry				All (Phy-Silt) 67.6-68.0 : Carb-Qt v 1mm 70° 68.0 : 68.0 : 75.9 : Py-Po Carb v 0.5cm 30° 78.0 : Qt v 2cm 70° 85.0 : Qt Carb v parallel to str 2cm 35°
					90.0			35°							
					94.9			30°	Phy	cly carb	gry	crsh			93.8 : Carb v 2cm

Assays					Depth-Symbol					Occurrence					Observations		
Dep (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Dep (m)	Core Sym	Str.	Rock	Fac	Attr	Min	Color	Fract				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
					102.0			30°	All		sil	Py-Po	l-gry	d-gry	All (Phy-Silt) Intv : 1mm-1cm-10cm Phy : d-gry Sills : l-gry, tuffaceous		
					110.0			30°							111.3m : 117.0-117.2 : Carb-Qt patch		
					120.0			10°									
					125.0	0.9	0.01	0.01	0.01	1	25°	Ore	vs	sil carb	Cu-Pb-Zn-Py-Po	125.0-125.3 : Cu diss in moss Po	
					129.4	1.0	0.61	0.10	0.66	8	25°					128.3-128.4 : Carb Qt Brc 129.2-129.4 : Carb Qt Brc	
					131.6	0.6	0.02	0.01	0.01	1	20°	All		cly	Py-Zn-gry	shd	131.6 : Carb vils parallel to str Po-Py diss
					138.4	2.5	0.02	0.01	0.01	1	30°	Ore	vils vs	sil carb	Py-Po-d-gry	138.4-140.0 : Qt v Cu-Po-Py diss Py-Po-Carb network low-grad 142.3 : Cu-Zn-Py-Po Carb v 5cm Cp : 2cm x 1cm 144.0-146.0 : F Cty 65°	
					148.6	2.5	0.02	0.01	0.01	1	25°	All			d-gry	148.6-150.0 : F 60° cly brc	
					150.0						25°	All		carb sil	Py-Po	gry	All (Phy-Silt) Intv : 1mm-1cm-10cm
					160.0						20°						
					163.6						25°						163.6 : F 50° 10cm cly
					170.0						20°						168.7 : Py-Po vils 169.7-169.7 : Carb Qt v, Cu-Py-Po diss 169.7-169.8 : Po-Py druse v 1cm 172.0 : Py-Po v 2cm 176.4-176.6 : Carb-Qt v Py-Po diss 179.0 : Cu-Py-Po Carb v 2cm 183.6-185.1 : shd 185.7 : F 25° 188.6-189.2 : F 190.9-191.4 : F 192.7-192.9 : Qt Carb v 194.7-194.7 : Cu-Py-Po diss 194.3-194.3 : Carb-Qt v 197.2-199.0 : Cu-Zn-Py-Po diss in Carb-Qt

Assays					Depth-Symbol					Occurrence					Observations	
Dep (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Dep (m)	Core Sym	Str.	Rock	Fac	Attr	Min	Color	Fract			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
					200.0			1-Alt			carb sil		gry		Intv : 1mm-1cm-10cm 203.2-204.2 : Cu-Zn-Py-Po diss 203.9-204.2 : Carb-Qt v 209.2-209.0 : shd 210.3-210.7 : Carb Qt v 210.7-242.0 : Shd 214.3-214.6 : Shd 219.4-219.5 : Qt v 222.0-222.3 : Carb Cu-Pb-Zn-Py 223.4 : Zn-Py-Po v 1-2cm 224.2 : Cu-Zn-Py v 1cm 225.1-227.1 : Pb-Cu-Zn-Py-Po vils-netw (3-225) : (Py-Sp-Cp-Qt-Sid-Ser-Chl-Koo-Pl-Bt)	
					220.0			25°	Ore	vils vs		Zn-Cu-Py-Po				
					225.1			20°								
					227.1			1-Alt				blk wht				
					230.0			10°								
					240.0			30°							Bedding 30°, J0int 25° (3-239) (Siltstone) : (Qt-001-Chl-Koo-Sz) (3-239) (Phyllite) : Qt-Chl-Ser-(Koo-Pl-Sid)	
					247.8			1-Alt				blk wht			1-Alt : Intv : 1mm-1cm-10cm	
					250.0			25°								
					260.0			45°-30°								
					270.0			25°								
					278.1			15°	Ore	diss vils	carb sil	Zn-Py-Po	gry wht		278.1-278.35 : Carb Qt v Carb drusy vs parallel to bed 1mm-2mm	
					280.0	3.1	0.04	0.06	0.34	1r	15°					
					283.3	3.1	1r	0.01	0.03	1r	15°					
					287.3	3.0	0.01	0.02	0.02	1r	15°	All		d-gry		
					290.0						15°	Phy	cly	d-gry	fract	290.3-292.0 : Shd
					380.0						5°					384.6 : Cu-Py-Po-Carb v 5cm 385.4 : F cly 5cm 20°
					390.0						5°					395.2 : Carb v 10cm 20° 399.0 : Stepped dislocation of Qt v 400.80m end

Assays					Depth-Symbol					Occurrence					Observations	
Dep (m)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	Dep (m)	Core Sym	Str.	Rock	Fac	Attr	Min	Color	Fract			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
					300.0			10°	1-Alt	Phy-Silt	carb sil	Cu-Pb-Zn-Py	gry wht		300.4 : 303.0 : Cu-Zn-Py-Carb v 1cm x 2, 5cm-5%	
					307.6	13	0.03	0.02	0.25		10°	Ore	vils		Cu-Zn	307.6-308.3 : Cu-Zn-Po-Py diss in vils 1-Alt : Intv : 1mm-1cm-10cm 312.6-313.0 : Pb-Cu-Po-Py diss in Carb vs (3-308) : (Gt-Sp-Py-Qt-Sid-Ser-Chl-Pl-Bt) 316.4-317.4 : Pb-Cu-Zn-Po-Py diss in vils 318.7 : Cu-Py-Po vils 0.5cm
					320.0						10°					
					324.6	19	0.11	0.28	2.06	3	10°	Ore	vs		Zn-Cu	324.6-326.3 : Pb-Cu-Cu-Py-Po diss asc, Carb vs
					329.3	13	0.09	3.09	2.87	1r	15°	1-Alt				329.0-329.3 : Frc cly 60° 329.3-331.9 : Cu-Zn-Py-Po diss
					330.0	13	0.04	0.76	0.97	5	10°	1-Alt				
					335.8						10°	Phy	carb	Cu-Zn-Py	blk	334.2 : Py druse 2cm
					340.0						10°					
					350.0						20°-10°	Phy	carb	d-gry		349.85-349.95 : Carb v 10cm 350.2 : Cu-Pb diss
					360.0						5°					369.2-369.5 : Carb Qt netw Cu-Py 372.1-372.6 : Zn-Cu-Py diss along l 373.5-374.3 : Qt-Carb v Cu-Py
					380.0						5°					
					390.0						5°					

GEOLOGIC DRILL LOG

HAOUZ PROJECT, MOROCCO
(FRIZEM AREA)

Coordinate N 94.330 Direction DDH No. MJMN-4
E 224.410 Inclination -90°
Elevation 692 m Total Depth 400.20m

Table 1: Geologic drill log for well MJMN-4. Columns include Assays (Ag, Cu, Pb, Zn), Depth-Symbol (Depth, Symbol, Str., Rock, Fac, Attr, Min, Color, Fract), Occurrence, and Observations. Data points range from 100m to 400.20m depth.

Table 2: Geologic drill log for well MJMN-4. Columns include Assays (Ag, Cu, Pb, Zn), Depth-Symbol (Depth, Symbol, Str., Rock, Fac, Attr, Min, Color, Fract), Occurrence, and Observations. Data points range from 100m to 400.20m depth.

Table 3: Geologic drill log for well MJMN-4. Columns include Assays (Ag, Cu, Pb, Zn), Depth-Symbol (Depth, Symbol, Str., Rock, Fac, Attr, Min, Color, Fract), Occurrence, and Observations. Data points range from 200m to 400.20m depth.

Table 4: Geologic drill log for well MJMN-4. Columns include Assays (Ag, Cu, Pb, Zn), Depth-Symbol (Depth, Symbol, Str., Rock, Fac, Attr, Min, Color, Fract), Occurrence, and Observations. Data points range from 300m to 400.20m depth.

