

17-20

LOG

Type Diamond Drill Bit Area Wigan Date Start 12/18/46 No. 0-5
 Coordinates Date Stop 1/30/47
 N. 6787 E. 5340 Elev. 992.7 Bear. S72°E Inc. -50°

From	To	Interval	Recovery	Character	Remarks
0	42	Gal	0	Al's. v. m.	
42	114	Pm	68	Shaly limestone and limy shale. Local silicate metamorphism (serpentine, garnet, epidote, and light colored silicate) Local pyrite. Bedding = 70° 103' 3" core leached and iron stained. 110' 5" core containing .50% pyrite and 10% garnet. From 113-114' core contains 60% pyrite.	
114	167	Pm	46	Limestone. Largely recrystallized and bleached. Locally slightly shaly with minor silicate metamorphism. Minor local leaching with vugs containing calcite crystals.	
167	169	Fa	2	Fault zone Brecciated and gangy with limonite and earthy hematite.	
169	227	Pm	51	Limestone. Largely recrystallized and bleached. 208-209.5' Partially metamorphosed zone with garnet and epidote.	
227	244	lms?	16	Limestone. Locally slightly shaly. Sl local leaching. (This interval may represent basal Mag. Shale formation - Fanning Shale horizon) 227-238', limestone with thin stringers of serpentine. 238-244', slightly shaly limestone.	
244	505	Mlv(?)	202	Limestone. Recrystallized and bleached. Local white chert. Local thin zones of silicate metamorphism.	

(Bottom)

Logged By: R.E.R.

DRILL HOLE LOG

Type Bit Area Date Start No. 0-6
 Coordinates Date Stop 2/12/47
 N. 6590 E. 5279 Elev. 995.4 Bear. S72 1/2° E Inc. -50°

From	To	Interval	Recovery	Character	Remarks
0	17.5	33i	0	Platinum	
17.5	174	Em	136	Very hard, low silicate metamorphism. (Garnet, epidote, and quartzite silicates) Locally leached and iron stained. Bedding ± 65°. 57'-74', massive brecciation ± 80°, strong leaching; fault, more or less gougy; minor disseminated pyrite.	
174	175	Em	1.4	Silicated and slightly mineralized zone. Disseminated chalcopyrite (altering to malachite and hematite) and pyrite. Estimate, 3% copper.	
175	180	Em	1	Limestone. Strongly leached and iron stained. Some silicate matrix with some pyrite. 175'-179', disseminated chalcopyrite and pyrite, estimate: 2% copper.	
180	241.5	Em	61.5	Limestone, locally slightly shaly, local moderate to strong iron staining. 183', 3" breccia. 189'-200', brecciated and gougy. 216.5 - 227.5', strongly brecciated and gougy. 239.5' - 240', disseminated sphalerite, estimate: 10% zinc.	
241.5	241.5	Em	0.5	Limestone. Silicated (25%). Trace disseminated sphalerite and galena.	
242.5	244	0	1.5	High grade ore. Sphalerite, chalcopyrite, galena and pyrite.	

(Cont'd)

Total Depth

DRILL HOLE LOG

NO. 0-6

SLUDGE				SLUDGE ASSAYS					CORE ASSAYS					COMBINED AVERAGE					
From	To	Inter- val	Recov- ery	Zn	Pb	Cu	Ag	Au	Zn	Pb	Cu	Ag	Au						
<div style="position: absolute; top: 40%; left: 40%; font-size: 2em;">Sludge</div>																			
177	180			0.57	Nil	0.10	1.28	Nil											
180	185			1.14	Nil	0.40	0.84	Nil											
<div style="position: absolute; top: 40%; left: 40%; font-size: 2em;">Core</div>																			
241.5	242.5		0.5						0.62	0.20	0.24	Tr	Nil						
242.5	244		0.6						26.73	0.88	10.74	2.66	0.02						

Logged By: _____

0-12 AX
12-53 AX
53-400 AX
400-414 AX
414-418 AX
418-419 AX

DRILL HOLE LOG

Type Diamond Drill Bit HTK-219 EX Area Torpedo Organ Date Start 1/31/47 No. 0-7
Coordinates Date Stop 5/2/47
N. 5215 E. 5221 Elev. 1013.8 Bear. S67°E Inc. -40°

From	To	Interval	Recovery	Character	Remarks
0	142	Pm	36.0	Shaly limestone. Moderately silicated. Badly broken	
142	152		No core	Cavity	Survey Depth Corrected Angle
152	321	Pm	76.0	Limestone. Locally slightly shaly. Partly recrystallized and bleached. Locally slight silication. 217'-219', no core, cavity.	200' 41° 400' 44° 600' 46½°
321	334	Fa(?)	1.0	Fault zone(?). 321'-326', gouge. 326'-328', brecciated limestone. 328'-330', cavity. 330'-332', no core. 332'-333', cavity. 333'-334', no core.	
334	434	Pm	37.0	Limestone with some shaly limestone. Limestone recrystallized and bleached. Shaly limestone partly silicated. Cavities reported 355'-360', 400'-404', and 428'-429'.	
434	438		No core		
438	445	Fa(?)	0.8	Fault(?). Gougy and brecciated zone.	
445	458	⊖	4.3	Oxidized copper ore. Venlets and disseminations of chrysocolla and malachite(?) in altered shaly limestone(?).	
458	461	Pm(?)	0.5	Shaly limestone. Altered. Disseminated black, earthy mineral (Mn?).	
461	524	Tm	2.8	Monzonite. Altered and partially silicified. 374.5'-377.0', disseminated black (Mn?) mineral. 482'-487', 497'-508', and 511'-514' no core. 514-524, slight disseminated black (Mn?) mineral.	

(Cont'd.)

Logged By: R.E.R.

DRILL HOLE LOG

Type..... Bit..... Area..... Date Start..... No. 0-7 (Gen H.)
 Coordinates
 N. 5215 E. 5221 Elev..... Bear..... Date Stop..... Inc.....

From	To	Interval	Recovery	Character	Remarks
524	557	Tm	5.6	Monzonite. Crushed and altered. Local earthy hematite.	
557	567	Tm(?)	5.0	Oxidized copper ore. Veinlets and disseminations of chrysocolla and malachite(?) in altered and silicified monzonite.	
567	619	Tm	17.2	Monzonite. Strongly to slightly altered. Intensity of alteration decreases with depth. 575'-578', 580'-583', and 586'-589' no core.	

Logged By: _____

DRILL HOLE LOG

NO. 0-7

SLUDGE				SLUDGE ASSAYS			CORE ASSAYS			COMBINED AVERAGE			
From	To	Interval	Recovery	Cu	Ag	Au							
<u>Sludge</u>				Recovery	Cu	Ag	Au	<u>Core</u>			Recovery		
442	447		14.5%	0.54	0.08	Nil	442.5-447	8.32	Tr	Nil	25%		
447	452		33.6%	0.72	0.10	Tr	447-452	4.90	Tr	Nil	28.3%		
452	457		9.4%	2.08	0.16	Tr	452-457	6.60	0.06	Nil	44.2%		
457	462		9.3%	2.00	0.12	Tr	457-462	4.00	Tr	Nil	27.1%		
462	467			0.50	0.04	Nil	462-467	0.80	0.05	Nil	13.9%		
467	472			0.32	0.20	Tr							
472	477			0.32	0.03	Tr	474.5-477.0	0.28	Tr	Nil	16.7%		
477	482			0.40	0.02	Nil							
482	487			0.50	0.06	Nil							
487	492			0.50	0.08	Nil							

Logged By:

DRILL HOLE LOG

NO. 0-7

SLUDGE				SLUDGE ASSAYS			CORE ASSAYS			COMBINED AVERAGE			
From	To	Interval	Recovery	Cu	Ag	Au							
				Cu	Ag	Au							
492	497			0.32	0.24	Tr							
497	502			0.52	0.10	Tr							
502	507			0.52	0.06	Nil							
507	512			0.40	0.22	Tr							
512	517			0.26	0.08	Nil							
517	522			0.30	0.10	Nil							
0-39	522	525		0.24	0.26	Nil							
	525	530		0.40	0.24	Nil							
	530	535		Nil	0.42	Tr							
	535	540		Nil	0.38	Tr							
	540	545		Nil	0.22	Nil							
	545	550		Nil	0.28	Tr							
	550	555		0.60	Tr	Nil							
	555	560	22.9%	0.60	0.14	Nil	557-560	3.70	0.04	Nil	51.7%		
	560	565	29.4%	1.64	Nil	Nil	560-565	5.20	Nil	Nil	53.0%		
0-49	565	570	40.9%	1.50	Nil	Nil	565-567	1.80	Nil	Nil	47.5%		
				<u>Averages</u>									
				<u>Sludge</u>									
			Recovery	Cu	Ag	Au							
445	458		19.5%	1.31	0.11	Tr	445-458	33.5%	6.01	Tr	Nil		
	557	567	29.8%	1.30	Tr	Tr	557-567	50.0%	4.07	Tr	Nil		
				<u>Core</u>									
			Recovery	Cu	Ag	Au							

Logged By:

DRILL HOLE LOG

Type Diamond Drill Bit 0-201 BX 721-4/TAX Area Organ Date Start 2/13/47 No. 0-8
 Coordinates Date Stop 3/25/47
 N. 6382 E. 5934 Elev. 1037.1 Bear. N72 1/2° W Inc. -40°

From	To	Interval	Recovery	Character	Remarks
0	60	Gal	0	Alluvium	
60	166	Tm	88	Monzonite. 2-3% disseminated pyrite. Trace of chalcopyrite. 124'-126', slightly altered (epidote?). 147'-154', slightly leached and iron stained. 154'-166, broken, leached, and iron stained.	
166	168	Fa	0.6	Fault. Gauge and strongly altered monzonite. Strongly iron stained.	
168	187	Tm	5.5	Monzonite. Silicate metamorphosed (30%) and silicified (30%). Leached and iron stained.	
187	198	Por	4	Porphyry. Coarse grained. May be dike.	
198	200.5	Tm	2.5	Monzonite. Slight disseminated epidote and pyrite. Trace of magnetite at 200'.	
200.5	395.5	Mlv(?)		Limestone. Silicated. Garnet 40%, quartz 30%, light colored silicates 15%, calcite 15%, specularite 5%. Local slight fracturing suggestive of post-silicate mineralization. 223.8'-226.7' disseminated sphalerite; estimate: 2% zinc. 229.5'-231.2, disseminated sphalerite; estimate: 3% zinc. 247.2', trace sphalerite. 253.7', 256.7, and 396.5' slight disseminated sphalerite.	
395.5	396.7	Ø	1.2	High grade ore. Sphalerite, pyrite, and chalcopyrite replacing limestone. Estimate: 30% zinc and lead combined, 5% copper.	

(Cont'd.)

Logged By: R.E.P.

DRILL HOLE LOG

NO. 0-8

SLUDGE				SLUDGE ASSAYS	CORE ASSAYS					COMBINED AVERAGE			
From	To	Inter- val	Recov- ery		Zn	Pb	Cu	Ag	Au				
71.0	76.0		4.5'		—	—	Nil	0.06	Nil				
109.0	113.0		3.8'		—	—	0.14	0.08	Tr				
223.8	226.7		2.8'		—	—	Nil	0.20	Tr				
229.5	231.2		1.6'		—	—	Nil	2.34	0.06				
247.2	252.0		4.5'		0.35	0.10	Nil	—	—				
253.7	256.7		2.9'		0.30	0.30	Nil	—	—				
395.5	396.7		1.2'		32.8	10.3	1.8	1232	Tr				

Logged By:

DRILL HOLE LOG

Type..... BH..... Area..... Date Start.....
Coordinates Date Stop.....
N. 6382 E. 5934 Elev..... Bear..... Inc.....

From	To	Interval	Recovery	Character	Remarks
396.7	418	41v(?)	18	Limestone. Recrystallized and bleached.	
(Bottom)				Locally slightly shaly.	

Logged By: R.E.P.

DRILL HOLE LOG

Type Diamond Drill Bit 122-181 AX (Reamed) Area Organ Date Start 7/1/47 No. 0-9
 Coordinates 401-510 AX Date Stop 4/25/47
 N. 5156 E. 5099 Elev. 250' Level _____ Bear. S50°E Inc. -70°

From	To	Interval	Recovery	Character	Remarks
0	388	0-5	360	Dolomite with a few thin limy zones. Locally moderately vuggy. 82'-87', leached and iron stained limy zone. 135'-155' and 180'-221'. Slight brecciation with white calcite replacing dolomite. 235'-240' slight brecciation and iron staining. 316-388, slight breaking, recemented.	
388	399	0-5	11	Dolomite. Slight breaking. Scattered stringers and disseminations of sphalerite and galena. Estimate: 3% zinc and lead combined. Locally moderate white fibrous silicate. Slight disseminated pyrite.	VEIN
399	407	0	8	Low grade ore. Stringers of sphalerite and galena in ^{silicate} dolomite. Estimate: 10% zinc and lead combined. Local white fibrous silicate.	vein
407	426	0-5	19	Dolomite. Scattered stringers and disseminations sphalerite and galena. Estimate: 3% zinc and lead combined. Slight disseminated pyrite.	vein
426	457	0-5	27	Dolomite. Scattered traces pyrite, sphalerite, and galena. 499', 0.3' containing approximately 12% zinc and lead combined.	vein
457	510	0-5	53	Dolomite. Slight breaking. Partially silicified (15%). Suggestion of bedding vamping between 30° and 35°.	vein

Logged By: _____

DRILL HOLE LOG

0-2 1/2 BX

Type Diamond Drill Bit 2 1/2 - J50 AX Area Organ Date Start 4/25/47 No. 0-10
 Coordinates Date Stop 5/1/47
 N. 6465 E. 5713 Elev. 1076.3 Bear. S. 72 1/2° E Inc. -60°

From	To	Interval	Recovery	Character	Remarks
0	27	Pm	16.5	Limestone, Silicated. Garnet, 35%; quartz, 35%; limestone, 10%; light colored silicates, 10%; diopside(?), 5%; specularite, 2%. 20' trace disseminated pyrite.	
27	36	M?	8.0	Limestone, Recrystallized and bleached.	
36	42	M.	5.0	Limestone, Silicated. Quartz, 40%; garnet, 30%; limestone, 20%; other, 10%.	
42	51	M?	5.5	Limestone, Recrystallized and bleached.	
51	96	M.	36.5	Limestone, Largely silicated (75%). Thin zones raw limestone (25%). 95'-96', leached zone (gassan) with disseminated pyrite, chalcopyrite, and malachite.	
96	104		No core	Cavity	
104	143	Tm	18.0	Monzonite porphyry. Slight disseminated pyrite. 130'-132', gougy zone.	
143	187	M/M?	36.0	Limestone, Silicated. Garnet, 10%; quartz, 40%; diopside and epidote, 10%; limestone, 5%. 173'-174', leached zone with slight disseminated malachite.	
187	189	M?	1.8	Limestone, Recrystallized and bleached.	
189	208	M/M?	14.0	Limestone, Silicated. Quartz, 50%; garnet, 40%. Leached and porous. Locally slight disseminated pyrite.	
208	220	Fa(?)	5.0	Fault(?). Brecciated and gougy zone. Leached and porous. Moderate iron staining.	

(Cont'd.)

Logged By: P.E.R.

DRILL HOLE LOG

Type..... Bit..... Area..... Date Start..... No. 0-101
 Coordinates Date Stop.....
 N..... E..... Elev..... Bear..... Inc.....

From	To	Interval	Recovery	Character	Remarks
220	234	Mlv?	6.0	Limestone. Silicated. Garnet, 50%; quartz, 40%. Slight local leaching.	
234	236	Fa(?)	1.6	Fault(?). Silicated gouge(?).	
236	263	Mlv?	20.0	Shaly limestone. Silicated. Diopside and epidote. Local leached and iron stained zones. Minor disseminated pyrite.	
263 (Bottom)	360	Tm	87.0	Monzonite. Moderate disseminated pyrite. Trace chalcoppyrite. Local fractures filled with white calcite, 282'-283', crushed and gangy zone. 320'-326', silicified. 356'-358', crushed and slightly altered.	

Logged By: R.E.R.

DRILL HOLE LOG

Deepened 280-307 Feet - 9/1/47

Type Diamond Drill Bit ^{0-3 BX} 3-236 AX Area Organ Date Start 4/1/47 No. 0-11
 Coordinates Date Stop 5/1/47
 N. 6499 E. 5417 Elev. 857.6 Bear. N 81° E Inc. -3°

From	To	Interval	Recovery	Character	Remarks
0	51	Pm	50.0	Limestone. Largely recrystallized and bleached. Slight local leaching and iron staining. Suggestion of bedding 60°. 32.5' - 33.5' silicated zone.	
51	69	Pmpc(?)	18	Limestone, slightly shaly. May represent basal Magdalena formation - Parting Shale horizon. 51-62.5', limestone with thin stringers of moderately shaly limestone.	62.5'-6
69	92.5	Mlv(?)	18	Limestone. Recrystallized and bleached.	
92.5	95.5	Mlv(?)	3.0	Limestone. Low grade silicate metamorphism. 92.5' - 94.0', slight disseminated sphalerite. Estimate: 2% zinc. 94' - 95', leached zone.	
95.5	105.0	Mlv(?)	9.0	Limestone. Silicated. Garnet, 70%; quartz, 20%. Moderate disseminated sphalerite. Estimate: 4% zinc. Minor disseminated pyrite.	
105	115	Mlv(?)		Shaly limestone. Partly silicated. Slight disseminated pyrite. Local traces sphalerite and galena.	
115	123	Mlv(?)	7.8	Limestone. Silicated. Garnet, 50%; quartz, 40%. Local traces sphalerite, galena, and pyrite.	
123	125	Mlv(?)	1.7	Limestone. Recrystallized and bleached.	
125	136	Mlv(?)	9.0	Limestone. Partially silicated (20%) and silicified (40%). Local traces sphalerite, pyrite, and galena.	
136	157	Mlv(?)	19.0	Limestone. Recrystallized and bleached.	
157	165	Mlv(?)	7.0	Limestone. Silicated. Disseminated pyrite. Minor sphalerite. 159' - 162', abundant pyrite, minor sphalerite.	
165	171	Mlv(?)	13.0	Limestone. Recrystallized and bleached.	
171	191	Mlv(?)	20.0	Limestone. Silicated. Garnet, 60%; quartz, 20%.	

(Cont'd)

Logged By: R.E.R.

DRILL HOLE LOG

NO. 0-11

SLUDGE				SLUDGE ASSAYS	CORE ASSAYS					COMBINED AVERAGE
From	To	Interval	Recovery		Zn	Pb	Cu	Ag	Au	
95.5	101.0	5.3'			5.60	0.30	0.28	0.30	Tr	
101.0	104.0	3.0'			2.45	0.40	0.32	0.44	Tr	
Average 95.5' - 104.0'					4.49	0.34	0.29	0.35	Tr	
159.0	161.9	2.5'			0.25	Tr	Tr	0.60	0.02	

Logged By:

DRILL HOLE LOG

NO. 0-11

SLUDGE				SLUDGE ASSAYS				CORE ASSAYS					COMBINED AVERAGE				
From	To	Interval	Recovery					Zn	Pb	Cu	Ag	Au					
201.0	203.5		2.3'					8.55	Tr	Tr	Tr	Tr					

Logged By: _____

DRILL HOLE LOG

Type Diamond Drill Bit 18-247 AX Area Ogan Date Start 4/20/47 No. 0-1
 Coordinates Date Stop 6/19/47
 N. 5151 E. 5098 Elev. 2501.151 Bear. S 33° E Inc. -30°

From	To	Interval	Recovery	Character	Remarks
0	303.6	0-5	243	Dolomitic limestone. Slight local brecciation. Local leaching. Brecciated and vuggy, 0-11'; Cavities reported, 26'-27', 30'-30½', and 118'-119'. Broken and partially silicified (25%) and calcified (20%). Local patches and seams pink (Mn?) mineral, 281'-291'. Broken and cemented zone, 281'-303'. Leached, 302'-303.6'.	
303.6	311.6	0-5	8.0	Mineralized dolomitic limestone. Disseminations and patches of galena, sphalerite, and pyrite. Leached and slightly vuggy zone, probably containing some zinc and lead carbonates, 303.6'-305.5'. Bennett vein.	478-520 + 1000 zone. Py, Galena, blchd, other.
311.6	493.0	0-5	156	Dolomitic limestone. Minor local breaking. Disseminated pink (Mn?) mineral, 341'-343' and 353'-354'. Leached zone, 399'-400'. Cavity, 432½'-436½'. Brecciated and broken with white calcite cement, local iron staining, and local pink (Mn?) mineral, 437'-458'. Strongly brecciated, 466'-478'.	
493.0	494.5	Tr(?)	1.1	Fine grained, porphyritic, igneous rock(?). Contacts suggest thin sill.	
494.5	672.0	0-5	177	Dolomitic limestone. Slight local breaking.	

(Cont'd)

Logged By: R.E.P.

DRILL HOLE LOG

NO. 0-12

<u>SLUDGE</u>				SLUDGE ASSAYS	CORE ASSAYS					COMBINED AVERAGE			
From	To	Inter- val	Recor- ery		Zn	Pb	Cu	Ag	Au				
				<u>Core</u>									
303.6	307.6	4.0'			3.65	2.2	-	1.20	0.02				
307.6	311.6	4.0'			1.7	1.5	-	0.45	0.02				
								21.65					
								.87					

Logged By: R.E.R.

DRILL HOLE LOG

Type Diamond Drill Bit Area Organ Date Start 5/3/47 No. 0-13
 Coordinates Date Stop 7/2/47
 N. 4890 E. 5136 Elev. 1039 Bear. S67.E Inc. -46°

From	To	Interval	Recovery	Character	Remarks
0	55	Qal	3	Alluvium	
55	240	Pm	69	Limy shale and silicified limestone. Partially silicated and altered (chlorite). Locally slight disseminated pyrite 114'-124', no core. 226', trace of galena.	Survey Depth Observed Angle Corr Angle 200' 53-45 48-00 400' 56-15 51-00
240	327	Tm?	29	Strongly altered rock. Maybe Tertiary monzonite. Moderate to strong brecciation. Slight local disseminated pyrite. Trace chalcopyrite. 247'-260', no core. 298'-302', strongly chloritized zone.	600' 57-45 52-00
327	415	Pm	51	Limestone and limy shale. Limestones rock crystallized and brecciated. Shale zones locally strongly chloritized. Minor disseminated pyrite. Local brecciation. Bedding average $\pm 73^\circ$. 385'-390', 395'-397', and 404'-415', strongly brecciated.	
415	430	Tm?	1.4	Altered monzonite(?). Leached.	
424	430		0	No core.	
430	489	Fa	23.9	Brecciated and silicified rock (monzonite?). Silicification varies from moderate to intense. Slight disseminated pyrite. Traces of chalcopyrite and chalcocite(?). Torpedo fault zone.	430-440
489	492		0	No core.	
492	502.5	Fa	4.3	Brecciated, silicified and altered rock (monzonite?). Silicification varies from	

Logged By: R.E.R.

DRILL HOLE LOG

Type..... Bit..... Area..... Date Start..... No. Q-13 (Cont.)
 Coordinates Date Stop.....
 N. 4880 E. 5136 Elev. Bear. Inc.

From	To	Interval	Recovery	Character	Remarks
				slight to strong. Alteration consists of chloritization and kaolinization. Partially leached and vuggy. Slight local disseminated pyrite. Torpedo fault zone.	
502.5	506.0	Fa	6.4	Altered, brecciated, and partially silicified rock. May be altered shaly limestone.	
506.0	515.2	Fa	3.2	Spongy, brecciated, and altered (kaolinized and chloritized) rock. Few thin seams containing FeO.	
515.2	538.5	Fa	4.7	Partially silicified fine grained rock. May be shaly limestone. Locally brecciated.	
538.5	599.0	Fa	11.3	Brecciated and silicified rock (marzovite?) Silicification varies from moderate to intense. Locally kaolinized. Local traces of pyrite. Partially leached and vuggy. 543'-546', 549'-558', 572'-575', 578'-581', no core.	
599	658	Tm	39	Marzovite. Local slight to moderate alteration. Local slight disseminated pyrite. 602'-614', no core.	

Logged By: R.E.R.

C-5-DR
 5 - 324 AX (Ground to MK 5'42")
 134 - 472 AX (Ground to AX 134-56')

DRILL HOLE LOG

Type Diamond Bit Area 2.5 sq m Date Start 5/15/47 No. 0-15
 Coordinates Date Stop 7/9/47
 N 6130 E 5470 Elev. 855 Bear. S67°E Inc. 0°

From	To	Interval	Recovery	Character	Remarks
0	22	Em?	17	Limestone. Recrystallized and bleached. Moderate leaching and iron staining. 5.5'-6.0', gougy zone.	
22	40	Pmp?		Limestone. Slightly shaly. May be basal Magdalena Formation, 27'-29', slight silicate metamorphism.	
40	215.5	Mlv?		Limestone. Recrystallized and bleached. Local silicification and silication. 50'-51', partially silicified. 54'-57', slight silication with local disseminated pyrite. 75'-79', slight silication. 79'-82', partially silicified (40%). 82'-97', broken and partially leached zone, partially silicified (30%), abundant brown calcite. 106'-112', partially silicated (50%). 155½'-157, partially silicated (30%). 172'-177', silicified (90%) zone. 192'-194', partially silicated (40%) with trace disseminated pyrite.	
215.5	237.5	Mlv?	21.0	Limestone. Silicated and silicified (garnet, 40%; other silicates, 15%; quartz, 40%). Disseminated specularite and pyrite. 216½'-217', disseminated sphalerite, estimate - ± 2% Zn. 232', trace malachite.	
237.5	246	Mlv?	6.5	Limestone. Recrystallized and bleached.	
246	246.5	Tm?	0.5	Manzanite. Disseminated pyrite.	
246.5	258	Mlv?	9.0	Limestone. Recrystallized and bleached. 257½-	

(Cont'd.)

Logged By: R.E.R.

DRILL HOLE LOG

Type..... Bit..... Area..... Date Start..... No. D-157(C-12)
 Coordinates Date Stop.....
 N..... E..... Elev..... Bear..... Inc.....

From	To	Interval	Recovery	Character	Remarks
				258', silicated with disseminated pyrite.	
258	259	Mix?	7.0	Limestone. Abundant disseminated pyrite (40%). Trace chalcopyrite.	
259	267	Mix?		Shaly limestone, largely silicated. Slight disseminated pyrite.	
267	381	Fa?	7.0	Fault zone. Gouge and mixed breccia of strongly altered sediments(?) and monzonite(?). 267'-300', gougy and brecciated zone - may be silt and gravel filled channel. 300'-306', brecciated and silicified monzonite(?). 306'-334', no core. 334'-340', brecciated and silicated limestone. 340'-366', brecciated and gougy zone - may be filled channel. 366'-381', no core.	
381	403	Mix?	4.7	Limestone. Silicated (garnet 65%, quartz 30%). Locally slightly leached and iron stained.	
403	427	Mix?	10.4	Shaly limestone. Silicated. Diopside and light colored silicates. Local pyrite as disseminations and in stringers.	
(Bottom					

Logged By: R.E.R.

DRILL HOLE LOG

Type Bit Area Organ Date Start 7/20/47 No. 0-16
 Coordinates
 N. 5157 E. 5099 Elev. 809 Date Stop 7/14/47
 Bear. N 74° E Inc. -66°

From	To	Interval	Recovery	Character	Remarks
	378.5	0-5	3.0	Dolomitic limestone. Locally broken to brecciated in places by water. Contains 24' 20", 25' 20", and 29' 31". Few small solution cavities. Local pink (Mn?) mineral. At 268' bedding (?) = 40°.	
378.5	398	0-5	4.7	Altered dolomitic limestone. Locally strongly leached and iron stained. Local pink (Mn?) mineral and partial silicification. 378 1/2' - 391' contains smithsonite, cerussite, and trace of wulfenite. 381-384' and 391'-392' cavities.	HW Vein ^{VPJ}
398	401	0-5	2.1	Mineralized dolomitic limestone. Slight disseminated sphalerite, galena, and pyrite. Estimate: ± 1% Zn and Pb combined. Partially replaced by calcite and silica.	
401	425.3	0-5	18.8	Mineralized dolomitic limestone. Disseminated sphalerite, galena, and pyrite. Mineralization spotty. Estimate: 4% Zn and Pb combined. Largely replaced by white calcite and partially silicified.	
425.3	440	0-5	14.7	Ore. Disseminated and spotty sphalerite, galena, and pyrite in dolomitic limestone that has been largely replaced by white calcite and partially silicified.	

(Cont'd.)

Logged By: R.E.R.

DRILL HOLE LOG

NO. 0-16

<u>INTERVAL</u>				SLUDGE ASSAYS	CORE ASSAYS				COMBINED AVERAGE			
From	To	Inter- val	Recov- ery									
<u>Split Core (AX) Assays</u>												
					Zn	Pb	Ag	Au				
378.5	381.0	1.6'	(Carbonate ore)		10.30	1.90	1.40	0.01				
401.0	406.0	5	5.0'		2.20	0.80	0.50	Tr				
406.0	411.0	5	4.9'		3.40	1.10	0.50	Tr				
411.0	415.0	4	2.9'		3.60	1.10	0.45	Tr				
415.0	420.0	5	1.3'		4.55	0.60	0.20	Tr				
420.0	425.3	5	4.8'		3.95	0.30	Tr	Tr				
425.3	430.0		4.7'		6.00	8.30	3.50	0.02				
430.0	435.0		4.7'		8.25	6.80	3.00	0.02				
435.0	440.0		5.0'		6.80	5.10	2.20	0.02				
440.0	445.0		4.8'		1.20	1.00	0.40	Tr				
<u>Averages</u>												
401.0	445.0	(29.0' normal to vein)			4.44	2.77	1.19	Tr				
406.0	440.0	(22.4' normal to vein)			5.25	3.32	1.40	Tr				
425.3	440.0	(9.7' normal to vein)			7.04	6.70	2.89	0.02				
401	425.3	(116' Norm)			3.5	0.77	0.37					

Logged By:

DRILL HOLE LOG

Type Diamond Drill Bit ^{0-5 BX} 5311 Area 2222 Date Start 7/14/47 No. 2-17
 Coordinates Date Stop 7/15/47
 N. 6420 E. 5560 Elev. 1000 Bear. N 69° 30' E Inc. - 38°

From	To	Interval	Recovery	Character	Remarks
0	0.5	M. 2	3.4	Limestone Silicated. Largely garnet	
0.5	10.5	M. 1	3.5	Limestone Recrystallized and bleached.	
10.5	15.0	M. 2	3.5	Limestone Silicated. Largely white, fibrous silicates. Garnet, pyrite. 13'-15' (1.4' core), garnet disseminated schistosity and pyrite. Estimate 1% Zn.	
15.0	22.0	M. 1	4.0	Limestone with slight silication.	
22.0	36.0	M. 1	9.0	Limestone Silicated (garnet 85%, light colored silicates 12%) - disseminated pyrite.	
36.0	52.0	M. 1	11.0	Limestone Recrystallized and bleached.	
52.0	62.5	M. 1	7.5	Limestone Silicated (garnet 70%). Slight pyrite.	
62.5	71.0	M. 1	5.2	Limestone Recrystallized and bleached. 66'-68' partially silicated with disseminated pyrite.	
71.0	88.5	M. 1	5.5	Limestone Silicated (garnet 80%). Local pyrite.	
88.5	95.0	M. 1	5.5	Limestone Recrystallized and bleached.	
95.0	115.0	M. 1	11.0	Limestone Silicated (garnet 50%, quartz 35%) Local disseminated pyrite.	
115.0	117.0	M. 1	1.0	Limestone. Partially silicated (50%).	
117.0	128.0	M. 1	6.3	Limestone Silicated (garnet 70%, quartz 25%) locally slight disseminated pyrite.	
128.0	132.0	M. 1	2.5	Limestone. Partially silicated (50% light colored silicates).	
132.0	158.0	M. 1	20.5	Limestone Silicated (garnet 75%, quartz 15%) locally minor pyrite.	

(Bottom)

Logged By: R.E.R.

DRILL HOLE LOG

Type *Diamond Drill* Bit ^{0-10 BX} *10:57 AY* Area *Oregon* Date Start *7/15/47* No. *0-17*
 Coordinates Date Stop *7/23/47*
 N. *5153* E. *5096* Elev. *Stephenson Forest 2500 feet* Bear. *S15°E* Inc. *-58°*

From	To	Interval	Recovery	Character	Remarks
0	435	0-5	359'	Dolomitic limestone. Locally slight to moderate breaking and partially replaced by white calcite and silica. Local leached and iron stained. At 42', bedding $\pm 40^\circ$. 127'-168', broken to locally brecciated. Fractures filled and rock partially replaced by white calcite. 358'-372', broken, altered (serpentine) and partially replaced by white calcite. 410'-435', broken to brecciated and partially replaced by white calcite.	
435	455	0-5	20	Dolomitic limestone. Largely altered (clay-like mineral and fibrous silicate) and replaced by white calcite. Locally minor silicification. This zone may represent unmineralized Bennett vein. Contacts gradational.	
455	544	0-5	83	Dolomitic limestone. Broken to brecciated and largely replaced by white calcite. Locally slight silicification. Locally slightly altered (clay-like mineral).	
544 (Bottom)	591	0-5	45	Dolomitic limestone. Broken to local moderate brecciation. Fractures filled with white calcite with local iron staining.	

Logged By: R.E.R.

DRILL HOLE LOG

Type Diamond Drill Bit ^{O-2 BK} _{2-202 AX} Area Memphis ^{Organ} Date Start 7/16/47 No. 0-19
 Coordinates Date Stop: 7/23/47
 N. 642.0 E. 556.0 Elev. 855 Bear. N47E Inc. -31°

From	To	Interval	Recovery	Character	Remarks
0	2.0	Mlv(?)	0.7	Silicated limestone. Local pyrite.	
2.0	17.0	"	13.5	Limestone. Recrystallized and bleached.	
17.0	75.0	"	51.0	Silicated limestone (garnet 60%, quartz 20%, limestone 10%). Local disseminated sphalerite. Minor disseminated pyrite. 31.5'-32.5', raw limestone. 51.9'-54.9', disseminated sphalerite in garnet; estimate: 8% zinc. 55'-58', raw limestone. 61.3', 2" disseminated sphalerite.	
75.0	185.5	"	95.0	Limestone. Recrystallized and bleached. Locally slightly leached. 75'-76', minor disseminated sphalerite in slightly silicated limestone.	
185.5	187.0	"	1.3	Silicated limestone (garnet 50%, light colored fibrous silicate 30%, limestone 15%) Broken. Slight disseminated sphalerite; estimate 2% zinc.	
187.0	188.0	Fa(?)	0.3	Fault zone (?). Brecciated, silicated limestone and gouge (?). Drillers report "mud".	
188.0	197.0	Mlv(?)	8.5	Limestone. Recrystallized and bleached.	
197.0	203.0	"	4.7	Limestone. Partially silicated (60%).	
	(Bottom)				

Logged By: R.E.R.

DRILL HOLE LOG

Type Standard Bit 0-11 3/4 Area 07995 Date Start 7-30-47 No. 0-20
 Coordinates N. 4829 E. 5585 Elev. ± 816 Date Stop 8-12-47
 Bear. S 55° E Inc. -10°

From	To	Interval	Recovery	Character	Remarks
0	197	1.7	170.5	Light to med gray, fine to med grain d dolomitic limestone. Local silification, fracturing, and bleaching. Associated Fe stained in 20-21.5. Patchy staining 131-140 & 150-135. Many carb filled seams	05
197	202.6	5.6	4.9	Red & brown variegated, fine to med grain Moderate to strong fracturing. Slight to intense red & brown staining. Some serpentine	
202.6	208.6	6	4.6	White zone ± 50% calcite. Moderate to strong fracturing - some leaching	
208.6	242	33.4	26.5	Light to med gray, fine to med grained dol ls. Associated zone moderate to strong. Some serpentine. Many calcite stringers, local reddish staining.	
242	258	16	11	Red-brown variegated, fine grained. Altered zone. Dark mineral (MnO ₂ ?) in seams	
258	304	46	31	Light gray, fine grained, dolomitic ls. Slight fracturing, some serpentine, moderately bleached.	
304	309	5	3	Variegated color - light to dark, fine to coarse grained. Altered zone. Some calcite & reddish stain. Leached & raggy.	

Logged By: KAR

DRILL HOLE LOG

Type Diamond Drill Bit 0-3 BX Org 7-179 AX Area Klamath Mts Date Start 7-29-47 No. 0-21
 Coordinates N. 6419 E. 5242 Elev. ± 855 Date Stop 7-31-47
 Bear. N 41½° E Inc. -19½°

From	To	Interval	Recovery	Character	Remarks
0	7	7	7	Partly silicated shaly limestone. Light gray.	Prob ?m
7	50	43	24	Mgy ls partly recrystallized and bleached. local minor disc py.	" "
50	60.5	10.5	8	Varietal, mottled ls. red grained. ± 40% gyt. Some fine 1-3' minor py.	" "
60.5	123	62.5	54	Med. grained ls. recrystallized and bleached. slight to moderate iron staining at 70 to 103	" "
123	123.5	10.5	8.5	Med gray, med grained shaly ls.	" "
133.5	169	35.5	32	light gray to med coarse grained ls. recrystallized and bleached. 134-140 partly silicated, tr py. 142-143 " " "	Mlv(?)
169	179 (Bottom)	10	9	light to med gray slightly shaly ls. Partly bleached, some local serpentine.	

Logged By: *KLR*

DRILL HOLE LOG

Type Diamond Drill Bit: 0-2 81 220 AX Area Organ Merzaphis Mine Date Start 7-31-47 No. 0-2 E
 Coordinates Date Stop 8-6-47
 N. 6419 E. 5242 Elev. ± 855 Bear. N 32° E Inc. -16°

From	To	Interval	Recovery	Character	Remarks
0	53	53	46	Med to fine grained shaley ls. Light to med gray - variegated. Minor local silication ± 10% py @ 6-7. Scattered py in gouge.	Prob Pm
53	64	11	9.5	Med gray med grained shaley ls. ± 5% serpentine at 53-57.	
64	107.5	43.5	26	Br. oxidated zone. Much faulting and oxidation. General brown color prob due to Fe stain or carb. ± 50% gar @ 64-66. Some gtz and considerable garnet. Some py @ 64-64.5	
107.5	202	94.5	78	Light to med gray, med to fine grained shaley limestone. General fracturing and bleaching. Local gar, some recrystallization.	
202	210	8	8	Light to dark gray, med to fine grained, shaley ls. Some serpentine.	
210	220 <i>(Bottom)</i>	10	8	Light gray, med to coarse grained bleached and recrystallized ls.	Mlv (?)

Logged By: *KCR*

DRILL HOLE LOG

Diamond BR _____ Area Oregon Date Mar 26 57 No. 10
 Coordinates (Torpedo) Date Stop _____
 N. 5264 E. 5239 Elev. ± 102.0 Bear. S 67° E Inc. - 50%

From	To	Interval	Recovery	Character	Remarks
0	12	12	-	Mantle rock	Qal
12	45	33	7	Shaley limestone - strongly silicified. Streaks of epidote below 25'	Survey
45	75	30	6	Slightly epidotized shaley limestone	One Carr
75	120	45	18	Shale (?), strongly epidotized; more than 1/4 epidote; trace pyrite.	0' 61° 50' 200' 63° 52'
120	153	33	13	Fine grained, dark gray limestone, slightly epidotized.	400' 65° 54' 600' 63° 52'
153	183	30	20	Moderate to strongly epidotized shaley limestone; trace pyrite.	
183	258	75	27	Fine to med. grained, white to light gray limestone; strongly silicified 209-211' and 255-256'.	MIV (?)
258	300	42	28	Med. to coarse grained, white to light gray limestone	MIV (?)
300	302	2	2	Shaley limestone - strongly epidotized	
302	359	57	18	Limestone - strongly silicified, more than 1/10 quartz; local epidote zones; 355-4" massive, coarse pyrite, less than 2% Cu, 1% Zn.	
359	440	81	31	Med. to coarse, white to light gray limestone	MIV (?)
440	465	25	0.3	Silicified limestone	
465	490	25	7	Fine grained, light to dark gray shale; chrysocolla on	

DRILL HOLE LOG

Type _____ Bkt _____ Area _____ Date Start _____ No. _____
 Coordinates _____ Date Stop _____
 N. _____ E. _____ Elev. _____ Bear. _____ Inc. _____

From	To	Interval	Recovery	Character	Remarks
				fractures from 465-475'	
490	497	7	2	Vuggy, fine grained, strongly silicified limestone (?)	
497	532	35	—	Cavity. Hard rib at 501.	
532	577	45	11	Medium-coarse grained, white limestone; cavities at 534-536, 540-546, & 554-559; brown chert at 547-548 & 564-565; 574-575, shale, strongly chloritized.	Mlv (?)
577	580	3	3	Garnet, 6" streak with chalcopyrite & specularite.	
580	587	7	2	Shale, strongly chloritized; cavity 585-6	
587	630(?)	43	20	Coarse, white limestone; slightly replaced by garnet at 601-610 & 618-619; cavity 619-622; no core 622-630	
630	635	5	0.1	Fragments of quartz, garnet, with traces of pyrite & chalcopyrite.	
635	636	1	0.3	Fine grained chlorite (shale or lamprophyre dike?)	
636	640	4	1.0	Quartz monzonite - strongly altered; replaced by quartz, chlorite, pyrite, chalcopyrite & secondary chalcocite.	
640	645	5	1.5	Quartz monzonite, slightly altered; pyrite, to chalcopyrite & chalcocite.	
645	670	25	15	Quartz monzonite, slight to unaltered; pyrite, to chalcopyrite.	

Bottom of hole

Logged By: O'Neill

DRILL HOLE LOG

Type Diamond Bit AX Area Oregon Date Start 8-13-47 No. 0-24
 Coordinates (Stephenson-Bennett) Date Stop 8-29-47
 N. S157 E. S100 Elev. 809 Bear. N52°E Inc. -52°

From	To	Interval	Recovery	Character	Remarks
0	11	11	10	Fine grained, light gray dolomite, brecciated and iron stained.	
11	117	106	93	Fine grained, light gray dolomite; slightly silicified 59-60'.	
117	119	2	1	Dolomite, brecciated and healed by 2/3 calcite, 1/3 quartz; vuggy.	
119	131	12	7	Fine grained dolomite.	
131	133	2	2	Dolomite, brecciated, healed by calcite; vuggy.	
133	149	16	3	Fine grained, light gray dolomite.	
149	151	2	2	Dark brown manganese oxides & calcite.	
151	163	12	11	Fine grained, light gray dolomite.	
163	266	103	94	Fine grained, medium to dark gray dolomite, irregularly replaced by calcite.	
266	361	95	71	Fine grained, medium gray dolomite.	
361	438	77	75	Fine grained dolomite, irregularly replaced by serpentine.	
438	444	6	6	Irregularly mottled dense white dolomite.	NW
444	463	19	16	Partially oxidized sulfides of lead & zinc in a dense quartz gangue.	
463	512	49	44	Vein; pyrite, galena & sphalerite in a gangue of quartz, minor calcite (and dolomite?).	FW
512	546	34	28	Fine grained, light gray dolomite; replaced by white calcite from 512-513'.	

Logged By: O. Hill

DRILL HOLE LOG

NO. 0-24

SLUDGE-Core					SLUDGE ASSAYS	CORE ASSAYS				COMBINED AVERAGE								
From	To	Interval	Recovery			Pb	Zn	Cu	Au	Fg								
444	450	6	5.5	}						4.05	9.95	Tr	0.35					
450	455	5	4.6		Partially oxidized						1.65	9.10	.01	0.35				
455	458	3	2.8								0.20	5.85	.01	0.65				
458	463	5	2.6								14.40	4.85	.02	6.90				
463	466	3	1.0								5.55	12.70	.01	1.85				
466	471	5	3.4							0.45	1.20	Tr	0.25					
471	476	5	3.4							3.30	4.45	Tr	1.05					
476	481	5	5.0							1.50	1.55	0.14	.01	0.50				
481	486	5	5.0							2.10	1.20	.01	0.70					
486	491	5	4.7							2.90	3.05	Tr	1.00					
491	496	5	5.0							1.30	0.40	.01	0.40					
496	501	5	5.0							1.25	2.15	Tr	0.35					
501	506	5	4.0							7.25	2.15	.13	.01	3.25			2.51	2.40
506	509	3	3.0							6.40	3.80	.16	.01	2.40			3.70	2.30
509	512	3	3.0							1.15	3.85	.11	.02	0.70				
Interval (width normal to 100%)																		
444	512	68			37'					3.6	4.2	.03	.01	1.38				
444	466	22			12'					5.53	8.41	-	.01	2.08				
444	476	32			18'					4.56	6.66	-	.01	1.66				
501	509	8			4'					6.93	2.80	0.14	.01	2.94				
466	501	35			19					1.83	2.00			0.60				

Logged By:

DRILL HOLE LOG

Type Diamond Bit _____ Area Organ Date Start 8/30/47 No. D-25
 Coordinates (Stephenson-Bennett) Date Stop _____
 N. 5248 E. 5176 Elev. 809 Bear. N 40° E Inc. -79°

From	To	Interval	Recovery	Character	Remarks
0	13	13	5	Fine grained, light gray dolomite; bx & Fe stained; cavity 12-13'	Survey Obs Corr
13	145	132	111	Fine grained, light gray dolomite; slightly silicified at 57'; dk gray 'below 115'	0' 82° 79° 200' 84° 81° 400' 83° 80°
145	146	1	1	Brownish, vuggy calcite.	600' 82° 79°
146	165	19	15	Fine grained, dark gray, mottled dolomite.	
165	167	2	2	Dolomite, moderately silicified; vuggy.	
167	210	43	32	Fine grained, med. to dk gray dolomite.	
210	225	15	13	Dark gray dolomite, 90% replaced by white calcite; 224-225' strongly silicified.	
225	307	82	65	Fine grained, light gray dolomite.	
307	330	23	17	Fine grained, light gray limestone (slightly serpentized?); scattered pyrite & trace galena 312-330.	
330	343	13	13	Fine grained, yellow-green serpen- tized dolomite; scattered pyrite.	
343	374	31	20	Fine grained, light gray dolomitic limestone.	
374	398	24	22	Dolomite, 2/3 replaced by calcite; tr galena at 381.	
398	440	42	29	Fine grained, dark gray dolomite.	
440	489	49	44	Dolomite, 2/3-3/4 replaced by calcite; locally traces of pyrite.	
489	530	41	37	Fine grained, dark gray dolomite.	

DRILL HOLE LOG

Type Diamond Bit 0-220-B+ Area Organ Stephens B. Date Start Nov. 15, 1947 No. 0-27
 Coordinates N 57.38 E 49.15 Elev. 750 Bear ? Inc. -50°
 Date Stop Nov. 15, 1947

From	To	Interval	Recovery	Character	Remarks
0	68	68	17	Light gray, fine grained shaley limestone; strongly bleached 30-50'	ML (?) Pub
68	233	165	64	Black limy shale, becoming less limy in depth; brecciated & calcite healed 68-125'; 229-231, 1/4' seams gypsum, trace pyrite	Dps Pub
233	262	29	11	Manzonite, fine grained; mod. alt; biotite altered to sericite.	Tgm
262	413	151	11B	Shale (?), brecciated & strongly silicified by chalcedonic quartz; more than 95% quartz.	Vein
413	464	51	49	Black shale, slightly brecciated & seamed with quartz veinlets.	Dps
464	512	48	45	Shale, brecciated & strongly silicified; more than 90% quartz.	Vein
512	593	81	53	Black shale; quartz veinlets & trace pyrite 512-550'.	Dps
593	620	27	16	Dolomite; contact very indefinite; slightly brecciated & iron stained.	0-5
620	630	10	-	Core barrel dropped & hole lost. Hole continued.	↑ T.F.O. ↓
630	658	28	26	Dolomite; recrystallized, fine grained, grayish-blue. Irregular bleaching, dasper (red-yellow) 653-654.	

Logged By: T.F.O.

0-27

Date	Depth	Dip	Bearing
2-12-48	300	$63\frac{1}{2}^{\circ}$	—
	Dip corr. to	$59\frac{1}{2}^{\circ}$	
2-13-48	500	$63\frac{1}{2}^{\circ}$	$S65^{\circ}E$
	Dip corr. to	$59\frac{1}{2}^{\circ}$	
2-14-48	700	62°	$S67\frac{1}{2}^{\circ}E$
	Dip corr. to	58°	
2-16-48	900	63°	—
	Dip corr. to	59°	
2-17-48	900	$62\frac{1}{2}^{\circ}$	$S62^{\circ}E$
	Dip corr. to	$58\frac{1}{2}^{\circ}$	
2-18-48	300	64°	$S66\frac{1}{2}^{\circ}E$
	Dip corr. to	60°	

DRILL HOLE LOG

Type _____ Dist _____ Area _____ Date Start _____
 Coordinates _____ Date Stop _____
 N. _____ E. _____ Elev. _____ Bear. _____ Inc. _____

From	To	Interval	Recovery	Character	Remarks
658	667	9	9	Dolomite. Brecciated zone with calcite, jasper & chalcedonic quartz healing dolomite.	Vein? fault
667	736	69	54	Dolomite, fine to medium grained, grayish blue, slightly brecciated & broken	O-S (?) No eff. Hcl dil
736	827	91	79	Dolomite (?) strongly brecciated with jasper and calcite and earthy brown carbonate (strong eff. Hcl dil) probably calcite stained with limonite, 2/3 Corbs 1/3 Jasper and Quartz. Dolomite fragments scarce. Brownish to white, mottled appearance	Vein
827	847	20	5	Calcite, badly broken	Vein
847	1025	188	189	Limestone (?) Moderately brecciated and badly broken, grey to dark blue and also ^{greenish} brownish streaks. Tiny carbonate seams throughout. Scarce pyrite, and serpentine, abund. clay?. 900-907 - clay gouge material - soft, strongly altered. 909-974 - black to light brown sand - st. eff. @ 1022-1023 sand, pyrite.	strong eff. dil Hcl (Ca) caused by O-S-Dol?

Logged By: *[Signature]*

DRILL HOLE LOG

Type Bit Area Date Start No. 0-20
 Coordinates Date Stop
 N. E. Elev. Bear. Inc.

From	To	Interval	Recovery	Character	Remarks
1035	1055	20	19	Strongly altered sedimentaries. Moderately brecciated & broken Abund calc. seams - serpentine (?) Green mottled.	0-5 Dol?
1055	1084	29	8	Chalcedonic Quartz $\frac{2}{3}$ and Carbonates $\frac{1}{3}$ - [1060-1071 (12" Core Rec) Red Fe-stained Hematite]	Vein? Fault? Dol.
1084	1217	133	110	Strongly altered sedimentaries Green-blue-white, Green m alteration minerals (?) mod. silicif. banding @ 85' with actis, Scattered prisms clay minerals? Probably shaley-limestone or dolomite originally. @ 1205-1206 black silicified shales Bedding @ 40° with actis. @ 1216-1217 Quartz - Shows leaching effects.	0-5 Dol? Mod eff. Hcl
1217	1254	37	16	Strongly altered sedimentaries @ 1217-1235 altered shaley member-green @ 1235-1254 strongly silicified zone. brecciated & broken	05 Dol?

Bottom

Logged By: *Johnston*

20
80-100
82-20

DRILL HOLE LOG

Type DDH Bit 0-270 AK Area Little Bear Date Start No.
 Coordinates Surface Date Stop
 N. 2668 E. 5281 Elev ± 1135 Bear. N 67 W Inc. - 52

From	To	Inter- val	Recov- ery	Character	Remarks
0	±10	10	0		
±10	14	4	1½	Mottled light tan coarse quartz porphyry strongly altered	
14	120	106	85	Do porphyry moderately to strongly altered. Moderately broken. @115 pre mineral fr ½" quartz and pyrite ± 40° with axis Li stained fractures	No eff. HCl dil.
106	270	164	148	Do porphyry, moderate to slight alteration, slightly broken. @ 134 fr = 3" @ 40° with axis, pyrite etc.	
270	365	95	80	Do porphyry, do alteration, do breaking.	
365	418	53	44	Do porphyry, slight breaking, moderate to strong alteration, clay minerals(?) chlorite, pyrite	
418	426	8	4	Do porphyry, strongly altered moderately broken, some precipitation, clay minerals(?) slight chlorite, slight pyrite, moderate quartz.	

Logged By: HAS

DRILL HOLE LOG

Type Bit Area Date Start No. 0-2
 Coordinates Date Stop
 N. E. Elev. Bear. Inc.

From	To	Interval	Recovery	Character	Remarks
426	442	16	1 1/2	Doporphyrin(?) brecciated gouge. Strongly altered, strong quartz, moderate clay(?) minerals.	
442	452	10	0		
452	457	5	1/2	Doporphyrin, strong alteration, strong "clay", slight quartz, slight pyrite	
457	472	15	0	No Core	
472	476	4	1/2	Sedimentary material, strong alteration, porcellanite, "clay". Gouge.	
476	481	5	3	Light greenish, moderately altered shaly limestone(?) Strongly broken.	
481	485	4	1/2	Do rock(?) strongly broken, breccia, strongly altered, quartz, chlorite etc.	
485	527	42	28	Sedimentary rock, shale and limestone strongly altered. Light tan garnet and light greenish porcellanite. Moderately to strongly broken.	

Logged By: HAS

DRILL HOLE LOG

Type Bit Area Date Start No. *002*
 Coordinates Date Stop
 N. E. Elev. Bear. Inc.

From	To	Inter- val	Recov- ery	Character	Remarks
527	596	69	50	No rock strongly altered Garnet and porcellanite Moderate to strongly broken Calcite seams. Sphalerite shales @ 551-552 with quartz cutting silicates.	
596	600	4	3	Porphyry moderately to strongly altered, chlorite, pyrite etc.	

Logged By: *WJ*

FIRST HOLE OF SHORE HOLE BRASS

DRILL HOLE LOG

Type DDH Bit AX Area 350 Level 1 Date Start 7/14/48 No. 1
 Coordinates N. 5024 E. 5316 Elev. 709 Date Stop 8/5/48
 Shaft Name BENNETT MINE Bear. S 45 E Inc. 0°

From	To	Inter-val	Recov-ery	Character	Remarks
0	3	3	3	Mineralized white carb with scarce Q, Galena, Sphalerite & pyrite scattered three-out, Core split.	Bennett Vein
3	24	21	21	Bleached vein zone, Dense white carb, rudely banded with less 10% Q. $\frac{1}{3}$ unaltered dol horres of O-S dolomite	Bennett Vein
21	40	19	15	Unaltered gray O-S dolomite Pink staining along small fractures	O-S dolomite
				Bottom	

Logged By: W.P. Jones

DRILL HOLE LOG

Type DDH Bit AY Area Bennett Mine Date Start 8/1/45 No. 0-21
 Coordinates 50 level N. Date Stop 8/26/45
 N. 5198 E. 5353 Elev. 709 Bear. S 81 E Inc. 0°

From	To	Interval	Recovery	Character	Remarks
0	28	28	28	White ^{silicate(?)} Carbonate(?) vein with about 10% ϕ interlaced, forming a rude banding. \pm 1/3 small dolomite 0-6 Scattered sphaerulite & pyrite \pm 1% Zn 7-13 dol. horse.	Bennett Vein
28	91	63	63	Dark to light grey dolomite moderately broken with scat. stringers of pink Jasperoid.	0-s dolomite
91	122	31	32	Dark to light grey dolomite strongly broken. 2/3 dol 1/3 ϕ & Ca. Gradational zone W of Page Vein.	0-s dolomite
122	240	118	118	Page vein Zone. white earthy fine grained mineral predominantly fine to rude banding with some ϕ & calcite. 128-129 Tiny veinlets pyrite. Early white mineral will not dissolve in Conc. HCl but is soft to scratch. Local greenish mineral, Bricite marker and probable serpentines sparsely disseminated & pyrite.	Page Vein

Logged By: wpl

DRILE HOLE LOG

Type _____ Bit _____ Area _____ Date Start _____ No. 0-31 (Cont.)
 Coordinates _____ Date Stop _____
 N. _____ E. _____ Elev. _____ Bear. _____ Inc. _____

From	To	Interval	Recovery	Character	Remarks
270	276	36	20	strongly broken dolomite healed by a whitish green mineral - Brucite (?) or Serpentine (?)	O-S dol
276	323	47	47	Massive white to light grey vein unknown amount of Quartz & calcite in a whitish-green ^{fibrous} matrix. Matrix is silicate, prob. Wollastonite. 307-315 Pink mineral in core prob rhodochrosite (effervesces). No sulphides.	Stephenson (?) Vein
323	336	13	13	O-S dol. bedding (?) makes \times of 70° with core. Moderately altered with sparse bands of brucite (?) - Serpentine (?)	O-S dolomite
				Bottom	

Logged By: WJ

DRILL HOLE LOG

Type D12 Bit Ax Area Bennett Date Start 8/24 48 No. 0-32
 Coordinates S. duct 350 Date Stop 8/27/45
 N. 4914 E. 5270 Elev. 710 Bear. S 70 E Inc. 0°

From	To	Inter- val	Recov- ery	Character	Remarks
0	30	30	30	Bennett Vein [1'-5' oxidized - brown carbonates, some Calamine and cerussite (lg or d(?) 2/3 Q)] 1/2" band galena - Sphalerite @ 1 1/2' Vein 2/3 Carb-silicate, 1/3 Q. white & grey banded.	Bennett Vein
30	35	5	5	Moderately altered dolomite white (silicate) bands scattered throughout.	O-S dolomite
				Bottom	

Logged By: WJF

DRILL HOLE LOG

NO. DDH 0-32

SLUDGE				SLUDGE ASSAYS				CORE ASSAYS			COMBINED AVERAGE			
From	To	Interval	Recovery											
1	5	+	+											
								Pb	Zn	Ag				
								101	18.3	0.72				

Logged By:

DRILL HOLE LOG

Type D.P.H. Bit A-X Area Bennett Date Start 8/27/48 No. 0-33
 Coordinates 350 S drift Date Stop _____
 N. 4846 E. 5251 Elev. 711 Bear. S 70 E Inc. 0

From	To	Inter- val	Recov- ery	Character	Remarks
0	38	38	38	Bennett Vein. white to grey, mottled & banded. $\pm \frac{1}{2}$ Quartz & $\pm \frac{1}{2}$ Silicate (?) - Carbonate 0-1' Oxidized - Sulphide Lg. Pb ore. Scattered Galena Sphalerite, pyrite 0-18'	Bennett Vein
38	134	94	94	Light grey dolomite. Moderately altered and broken. Scattered bands of Quartz, white silicate and carbonate, 84-85 Silicate (wollastonite?) vesiculated.	OS dolomite
134	170	36	36	Page Vein - Predominantly white with some grey banding, $\pm \frac{1}{2}$ dense white Quartz. Carb & Silicates $\pm \frac{1}{2}$. 136-140, Scattered Pb-Zn-Fe Sulphides, less than 1%.	Page Vein
170	213	43	43	Page Vein. Mottled and finely banded grey & white. Silicate (?) with minor Quartz and Carbonate	Page Vein

Log by: W.P.

DRILL HOLE LOG

Type..... BT..... Area..... Date Start..... No. 0-33 Cal
 Coordinates Date Stop.....
 N..... E..... Elev..... Bear..... Inc.....

From	To	Interval	Recovery	Character	Remarks
213	240	27	24	Grey massive dolomite moderately broken with minor introduced Quartz	O-S dolomite
240	263	23	21	white to grey vein zone. white silicate predominates with less 1/3 pink to grey cherty Quartz	Stephenson (?) Vein Zone
263	280	17	17	medium grained grey cherty quartz \pm 90% Calcite (x's) and minor silicate.	Stephenson (?) Vein Zone.
280	301	21	21	Dark grey dolomite, minor alteration.	O-S dolomite
302	306	4	4	vein zone \pm 1/2 white silicate and \pm 1/2 fine grain dense quartz	vein
306	335	34	32	moderately broken dark grey dolomite. Fractures cemented. by calcite and Serpentine(?)	O-S dolomite

Logged By:

DRILL HOLE LOG

Cost

Type..... Bit..... Area..... Date Start..... No. 0-33

Coordinates..... Date Stop.....

N..... E..... Elev..... Bear..... Inc.....

From	To	Interval	Recovery	Character	Remarks
335	344	9	9	mottled vein zone - Silicate (greenish white) and pink cherty quartz.	vein
344	354	10	10	Moderately broken grey dolomite	OS dolomite
				— Bottom	

Logged By: WAF

DRILL HOLE LOG

Type DDH Hole No. 106 Area Bennett Vein Date Start 2/28/48 No. 0-51
 Coordinates 450 North Date Stop 2/30/48
 N. 5121 E. 5305 Elev. 615 (Rel) Bear. N 70 W Inc. 0

From	To	Interval	Recovery	Character	Remarks
0	106	106	31	C-S dolomite, light grey with slight brecciation and alteration. 0-3' quartz and silicified material from HW of Bennett Vein, mottled effect source. 30-37' light green alteration Serpentine or Brucite marble (?)	0-5 dolomite
				Bottom	

Logged By: WJ

DRILL HOLE LOG

Type DDH Bit FX Area Bennett Vein Date Start 3/31/46 No. 0-35
 Coordinates N. 450 Lev. Date Stop 9/1/46
 N. 5171 E. 5338 Elev. 615 (Rel) Bear. S 73 E Inc. 0

From	To	Interval	Recovery	Character	Remarks
0	35	35	31	Bennett Vein	Bennett Vein
				0-6' mottled gr-wh silicate, carb.	
				and minor Quartz	
				6-15 Partly Ox & leached	
				gangue predominantly Quartz	
				Scattered oxidized & Sulphide	
				mineralization. Core split	
				from 10'-13'	
				15-22 unalter dolomite horse	
				22-35 Grey-white mottled	
				silicate vein, minor Carb & quartz	
35	41	6	6	0-5 dolomite, grey slightly	05 dolomite
				altered & broken	
				<u>Bottom</u>	

Logged By: WJF

DRILL HOLE LOG

Type D.D.H. Bit FW Area Bennett Vein Date Start No. 0-3
Coordinates 150 lvs S. Date Stop
N. 4954 E. 5213 Elev. 612 Bear. S 80 E Inc. 0

From	To	Interval	Recovery	Character	Remarks
0	25	2 1/2	25	Bennett Vein white, pink, grey mottled, Quartz ± 50 silicates and Carls ± 50. 0-3' partly oxidized & leached. @ 16' scattered Pbs for 6"	Bennett Vein
26	40	14	10	OS dolomite slightly altered, grey.	OS dolomite
				Bottom	

Logged By: WJ

DRILL HOLE LOG

Type D D H Bit Ex Area Bennett Vein Date Start No. 0-37
Coordinates 450 South Date Stop
N. 4821 E. 5187 Elev. 617 Bear. S 86 E Inc. 0

From	To	Interval	Recovery	Character	Remarks
0	28	28	28	Bennett Vein. 0-13' white-grey, weakly banded silicate (wollastonite (?)), 13-21 unaltered dolomite horse. 21-28' banded white-grey vein material (Silicate) Minor pyrite. 1/2" veinlet of galena @ 23 1/2'	Bennett Vein
28	42	14	13	slightly altered and broken dolomite	as dolomite

Logged By: W. J. [Signature]

Intersects Bennett Vein @ 31° angle

DRILL HOLE LOG

Type DDH Bit 3-0-3 BV Ax. Area _____ Date Start _____ No. 0-39
 Coordinates Date Stop _____
 N. 5106 E. 5164 Elev. 606 Bear. N 49E Inc. -230'5

From	To	Interval	Recovery	Character	Remarks
0	90	90	90	grey massive dolomite, Weakly altered by massive green mineral (serpentine?)	0-3 dolomite
90	115	25	25	white to grey mottled vein zone, north extension of west faulted portion of Bennett vein, not true Bennett Vein, white silicate.	Vein zone
115	192	77	60	0-5 dolomite moderately altered & broken with numerous quartz stringers, 146-186' = small vein zone ± 1/2 Quartz 186-192 strongly altered and leached.	0-5 dolomite
192	211	19	19	Bennett Vein - soft white compact silicate vein with noticeable lack of quartz except hard rib from 192-194'. Scattered Pyrite, galena and sphalerite from 197-204'; less 1% sulphide	Bennett Vein

Logged By: [Signature]

DRILL HOLE LOG

(Cont)
No. 0-59

Type..... Bit..... Area..... Date Start.....
 Coordinates..... Date Stop.....
 N..... E..... Elev..... Bear..... Inc.....

From	To	Inter- val	Recov- ery	Character	Remarks
211	249	38	35	Less mineralized and altered portion of Bennett vein, white and blue mottled. 1/2 dolomite; 1/2 white silicate.	Bennett Vein zone
249	287	38	35	Footwall portion of Bennett vein, white silicate gangue predominates with minor quartz. 251'-261' Pb-Zn ore. Less mineralized + thin-cut silicate gangue. 10% combined. 261'-276' part of mineralized zone less than 4% combined Pb-Zn.	Bennett Vein zone.
287	331	44	38	O-S dolomite slightly altered and broken grey massive dolomite.	O-S dolomite
				Bottom	
				HOR DIST 293'	

Logged By:

DRILL HOLE LOG

NO. 0-319

SLUDGE				SLUDGE ASSAYS	CORE ASSAYS					COMBINED AVERAGE			
From	To	Inter- val	Recov- ery		Zn	Pb	Ag	Au	Cu				
				Split Core Ax Assays									
				Norm. to Vein									
251	256	5.0	5.0'	2.6	8.0	11.6	4.56	Nil	0.3				
256	261	"	4.6'	2.6	4.4	4.45	1.60	Nil	0.25				
261	266	"	4.0'	2.6	3.3	4.75	2.4	Tr	-				
266	271	"	4.0'	2.6	3.9	7.75	3.84	-	-				
271	276	"	4.3	2.6	1.5	1.6	0.56						
251	271	20		10.4	4.9	7.1	3.1						

Logged By:

DRILL HOLE LOG

Type Bit Ex Area Barnett Date Start No. 0-12
 Coordinates 350 S. drift Date Stop
 N. 4803 E. 5218 Elev. 711 Bear. S 80 W Inc. 0°

From	To	Inter- val	Recov- ery	Character	Remarks
0	130'	130	127'	Massive grey dolomite Weakly altered by a pink mineral (Rx dolomite?)	OS dolomite
130 -	239	109	95	Moderately altered and broken dolomite with scattered bands (up to 18") of white silicate and less common quartz 75-177 Quartz veinlet	OS Dolomite
239	256	17	-	Vitreous grey quartz containing tiny vugs ± 1/2 Crystalline dolomite ± 1/2 Prob. branch West Fault zone.	Vein West Fault(?)
256	285	29	20	Crystallized dolomite grey in color. Partly silicified with numerous vugs	West Vein zone
285	295	10	7	grey fine grained quartz, unbroken	West Fault
295	337	42	22	Silicified shaley limestone mottled black & grey. Prob. Magdalena series.	Magdalena (?) or DPS (?)

Botton

Logged By: WJF

DRILL HOLE LOG

Type DDH Blt. 0-4 BV Area Bennett Date Start Sept 1951 No. 0-4
 Coordinates 450 W. cut Date Stop _____
 N. 5103 E. 5153 Elev. 606 Bear. N 75 E Inc. -45°

From	To	Interval	Recovery	Character	Remarks
0	135	135	132	O-S dolomite, light grey color predominates - some dark blue. Moderately altered with numerous bands of white silicate (wollastonite (?) & light green serpentinite (?))	O-S dolomite
135	145	10	9	Pink Jasperoid replacing about 1/2 dolomite. Remains of Bennett vein zone.	Bennett Vein
145	148	3	3	Oxidized H.W streak. Ox Pb-Zn ore (?). Prob high in Zn.	Bennett
148	197	49	43	white silicate with alternating bands of grey quartz, ± 2/3 silicate ± 1/3 quartz. Scatter. Pb-Zn mineralization throughout, less than 1% combined. Also scattered pyrite	Bennett
197	221	24	24	strongly altered dolomite None in vein	dolomite None

Logged By: _____

DRILL HOLE LOG

Cat. No. 10-4

Type: _____ Bit: _____ Area: _____ Date Start: _____
 Coordinates: _____ Date Stop: _____
 N. _____ E. _____ Elev. _____ Bear. _____ Inc. - 45

From	To	Inter- val	Recov- ery	Character	Remarks
221	272	51	51	white silicate vein with scattered Pb-ZnS mineralization. Also scat. pyrite. alternating bands of unaltered dolomite. 225-227 low grade Pb-ZnS ore.	Bennett vein
272	290	18	15	Moderately altered grey dolomite	O-S dol.
				Bottom	
				205 = 14022	

Logged By: W.D.

DRILL HOLE LOG

NO. 0-41

SLUDGE				SLUDGE ASSAYS	CORE ASSAYS			COMBINED AVERAGE			
From	To	Inter- val	Recov- ery								
205	145	148	3	3	2.4	Norm to Vain	Pb	Zn	Ag		Oxidized
							10.6	13.6	4.2		
206	181	184	3	3	2.4		5.2	3.8	2.5		Sulphide
207	225	227	2	2	1.6		5.6	0.5	2.2		"

Logged By:

DRILL HOLE LOG

Type SDH Bit Ex Area Bennett Date Start No. 0-42
 Coordinates 3,350 level Date Stop
 N. 4796 E. 5227 Elev. 711 Bear. S 60 E Inc. 0

From	To	Interval	Recovery	Character	Remarks
0	29	29	29	0-10 alternating bands of white silicate and grey quartz. Shows Pb-Zn-FeS	Bennett Vein
				10-17 dolomite horse mod. altered.	
				17-29 white silicate and grey quartz alternating	
29	40	11	11	Moderately altered dolomite Partly silicified	O-S dolomite
				<u>Bottom</u>	

Logged By: WJL

DRILL HOLE LOG

Type D.D.H. Bit Ex

Area Bennett Vein
S. 350 level

Date Start 9-17-48 No. 0-48

Coordinates

N. 4709 E. 5223 Elev. 710 Bear. N 80 E Inc. 0

Date Stop 9-18-48

From	To	Interval	Recovery	Character	Remarks
0	25	25	22	0-10' white quartz-silicate vein (1/2 Quartz) minor Pb, Zn, Fe, S.	Bennett Vein
				10-25 grey-white mottled silicate with some unaltered dolomite & minor quartz.	
25	30 7	7	7	Moderately altered grey dolomite	0-5 dolomite
				<u>Bottom</u>	

Logged By: [Signature]

DRILL HOLE LOG

The DDM Bit E x ^{Bennett} Area 350 Lw Date Start No. 0-99
 Coordinates S x-cut Date Stop
N 4600 E. 5253 Elev. 713 Bear. S 85 E Inc. 0°

From	To	Inter- val	Recov- ery	Character	Remarks
0	77	77	58	grey slightly mottled (with white) dolomite Slight alteration & breaking	O-S dol
77	109	32	32	white bleached vein zone with scarce alteration dolomite ^{etc} bands no mineralization	Vein Zone (Page?)
109	173	62	44	grey dolomite moderately altered with silicates & silica	O-S dol
173	230	57	54	grey to white glassy quartz composes 2/3 of vein white silicates and unaltered dolomite composes 1/3.	Stephenson Vein Zone
230	289	59	59	light grey dolomite moderately silicified & silicated.	O-S dol.
Bottom					

Logged By: W.D.

DRILL HOLE LOG

Type D.R.H Bit # 0-4 BX Area Bennett Date Start No. 0-43
 Coordinates 450 W.V-cut Date Stop
 N 5098 E 5169 Elev. 606 Bear S30E Inc -52

From	To	Interval	Recovery	Character	Remarks
0	56	56	42	Grey slightly altered dolomite	O-S dolomite
56	65	9	8	white silicate-quartz vein	vein
65	137	72	72	Moderately altered mottled grey dolomite; silicated & silicified	O-S dolomite
137	171	34	32	Altered vein zone. Strongly silicated, minor quartz 137-141 low grade ($\pm 2\%$ combined) Pb-ZnS mineralization. 164-168 (1/20x) ore - core split. Cavity one (1) foot @ 169.	Bennett vein
171	190	19	15	Moderately altered dolomite horse	Dol. Horse
190	246	56	53	Altered vein zone white to pale green silicate predominates. Minor Pyrite	Bennett vein

Logged By: *[Signature]*

DRILL HOLE LOG

Bit..... Area..... Date Start..... No. O.....
 Coordinates Date Stop.....
 N..... E..... Elev..... Bear..... Inc.....

From	To	Inter- val	Recov- ery	Character	Remarks
246	255	9	8	Gray partly silicified dolomite	O-S dolomite
				Bottom	

Logged By: *WJG*

DRILL HOLE LOG

Type **RDH** Bit **EX** Area **Bennett** Date Start **7/5/57** No. **5**
 Coordinates **450 level** Date Stop
N. 5091 E. 5296 Elev. **610** Bear. **S71E** Inc. **0**

From	To	Interval	Recovery	Character	Remarks
0	24	24	20	white silicate vein zone with minor quartz Scarce pyrite.	Bennett Vein
24	71	47	47	Grey dolomite with minor streaks of quartz 29-30 Quartz Veinlet 66-68 " " "	O-s dol
Bottom					

Logged By: *[Signature]*

DRILL HOLE LOG

Type **D.D.M.** Ht **A+** Area **Bent** Date Start _____ No. **P-5**
 Coordinates **450 W Xcut** Date Stop _____
 N. **5103** E. **5161** Elev. **609** Bear. **N 82 W** Inc. **0°**

From	To	Interval	Recovery	Character	Remarks
0	50	50	50	Moderately altered dolomite. Partly altered ($\pm 1/3$) to white silicate with minor quartz.	O-S dol
50	64	14	12	grey quartz vein barren no Fe staining	Vein
118	156 <small>18</small>	38	35	Silicified and altered zone. shines as Pb-Zn S @ 154'. West Fault Zone.	
156	238 <small>156 82</small>	82	65	Black partly silicified shale. Bedding @ 30° with hole.	Percha Shale
	238				
238	258	20	16	solid grey - pink Jasperoid zone	West Fault
				Bottom.	

Logged By: _____

DRILL HOLE LOG

Type DDH Bit 6-1/2" AY Area _____ Date Start _____ No. 0-55
Coordinates Date Stop _____
N. 4847 E. 5241 Elev. 706 Bear. S 85 W Inc. - 45°

From	To	Interval	Recovery	Character	Remarks
0	41	41	33	Partly oxidized vein with weak Pb mineralization. Quartz predominates in gangue. 36'-38' oxidized - gave weak Pb test with Potassium Iodide. Numerous small vugs with quartz crystals.	Prob. Intersected HW Bennett Spur Vein
41	76	35	19	Light grey dolomite. Core was chipped by bit to such an extent that original fracturing is obscure. Bottom. 54 Horz	Oxidized dolomite

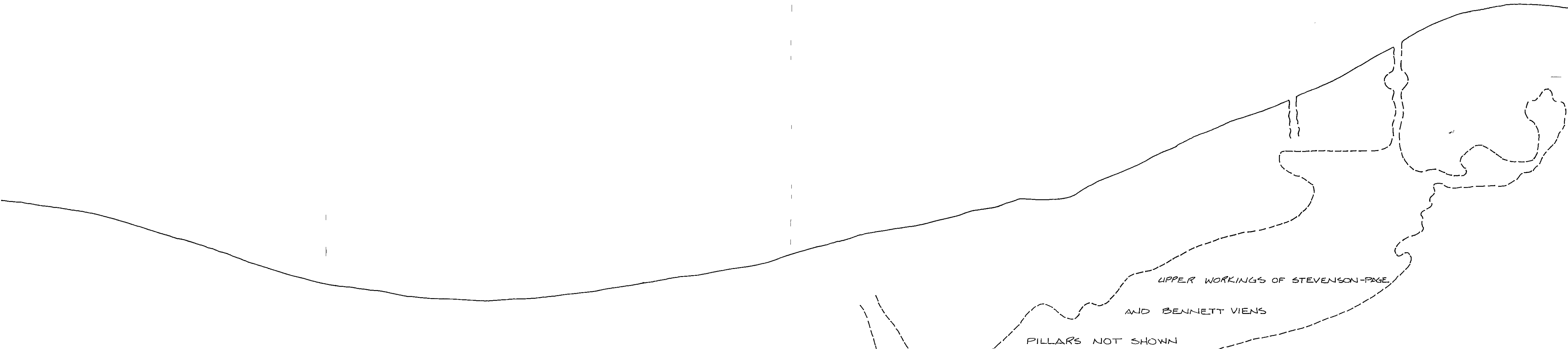
Logged By: _____

NEW JERSEY ZINC EXPLORATION CO.

(THE EMPIRE ZINC CO.)

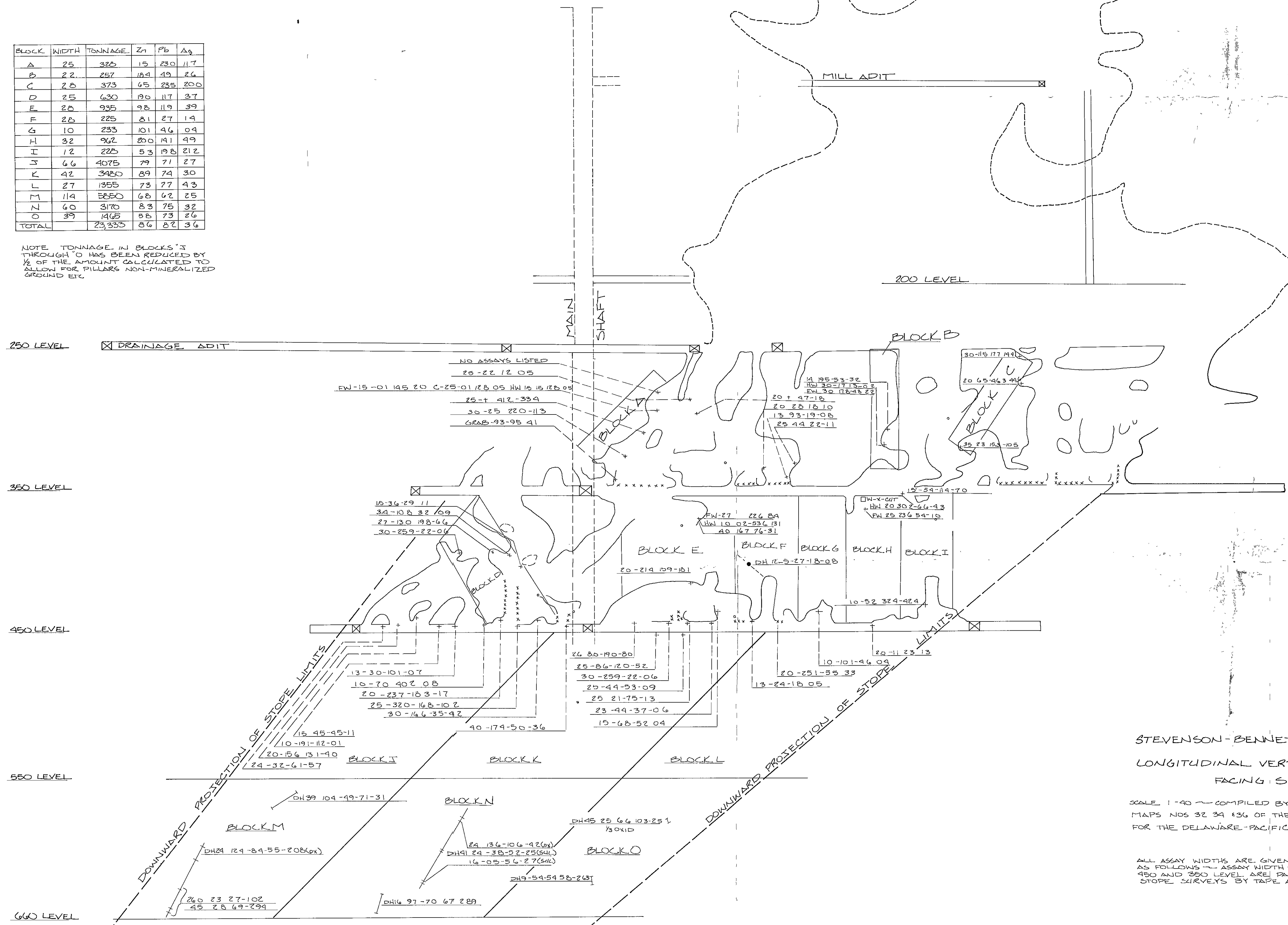
FILE: AX-NM 17	NO: A-1	SURFACE GEOLOGIC PLAN STEPHENSON-BENNETT MINE ORGAN MINING DIST., NM SILVER CITY, NM
FILE: AX-NM 17	NO: A-2	SURFACE GEOLOGIC PLAN STEPHENSON-BENNETT MINE ORGAN MINING DIST., NM HANOVER, NM
FILE: AX-NM 17	NO: A-3	COMPOSITE LEVEL PLAN STEPHENSON-BENNETT MINE ORGAN MINING DIST., NM HANOVER, NM
FILE: AX-NM 17	NO: A-10	452 FOOT LEVEL GEOLOGIC PLAN STEPHENSON-BENNETT MINE ORGAN MINING DIST., NM SILVER CITY, NM
FILE: AX-NM 17	NO: A-7	250 FOOT LEVEL GEOLOGIC PLAN STEPHENSON-BENNETT MINE ORGAN MINING DIST., NM SILVER CITY, NM
FILE: AX-NM 17	NO: A-8	352 FOOT LEVEL GEOLOGIC PLAN STEPHENSON BENNETT MINE ORGAN MINING DIST., NM SILVER CITY, NM
FILE: AX-NM 17	NO: A-11	STEPHENSON-BENNETT MINE ORGAN MINING DIST., NM PLAN OF 570, LEVEL HORIZON HANOVER, NM
FILE: AX-NM 17	NO: A-12	PLAN OF 650 FOOT LEVEL HORIZON STEPHENSON-BENNETT MINE ORGAN MINING DIST., NM HANOVER, NM
FILE: AX-NM 17	NO: B-1	GEOLOGIC MAP ORGAN MINING DIST., NM MEMPHIS-TORPEDO AREA SILVER CITY, NM

FILE: AX-NM 17	NO: B-2	GEOLOGIC MAP ORGAN MINING DIST., NM MEMPHIS-TORPEDO AREA SILVER CITY, NM
FILE: AX-NM 17	NO: B-3	COMPOSITE UNDERGROUND, GEOLOGIC MAP ORGAN MINING DIST., NM MEMPHIS-TORPEDO AREA SILVER CITY, NM
FILE: AX-NM 17	NO: B-4	CROSS SECTION, D D H, 0 - 13 ORGAN MINING DIST., NM SILVER CITY, NM MEMPHIS-TORPEDO AREA, SECTION 3746
FILE: AX-NM 17	NO: B-5	CROSS SECTION, D D H's, 0 - 6, 0 - 8, 0 - 10 ORGAN MINING DISTRICT MEMPHIS-TORPEDO AREA, SECTION 5536 SILVER CITY, NM
FILE: AX-NM 17	NO: B-6	CROSS SECTION, D D H, 0 - 5 ORGAN MINING DIST., NM SILVER CITY, NM MEMPHIS-TOTPEDO AREA, SECTION 5748
FILE: AX-NM 17	NO: B-7	CROSS SECTION, D D H's, 0-7, 0-23 ORGAN MINING DIST., NM MEMPHIS-TORPEDO AREA, SECTION DDH, 0-7 SILVER CITY, NM
FILE: AX-NM 17	NO: D-1	GEOLOGIC MAP, 165 FOOT LEVEL ORGAN MINING DIST., NM MEMPHIS MINE AND VICINITY SILVER CITY, NM
FILE: AX-NM 17	NO: G-2	CROSS SECTION, D D H, 0 - 28 ORGAN MINING DIST., NM LITTLE BEN SCOTT AREA SECTION ALONG DRILL HOLE 0-28 SILVER CITY, NM
FILE: AX-NM 17	NO: H-1	CROSS SECTION, D D H, 0-29 ORGAN MINING DIST., NM FRANKLIN AREA SECTION ALONG DRILL HOLE 0-29 SILVER CITY, NM



BLOCK	WIDTH	TONNAGE	Zn	Pb	Ag
A	25	325	15	230	117
B	22	257	18	49	24
C	20	373	65	235	200
D	25	630	190	117	37
E	20	935	98	119	39
F	20	225	81	27	14
G	10	233	101	46	04
H	32	962	200	141	49
I	12	220	53	198	212
J	46	4075	79	71	27
K	42	3480	89	74	30
L	27	1355	73	77	43
M	114	5250	68	62	25
N	40	3170	83	75	32
O	39	1465	58	73	26
TOTAL		23,333	86	82	36

NOTE: TONNAGE IN BLOCKS J THROUGH O HAS BEEN REDUCED BY 1/2 OF THE AMOUNT CALCULATED TO ALLOW FOR PILLARS, NON-MINERALIZED GROUND, ETC.



STEVENSON-BENNETT MINE - ORGAN, NEW MEXICO
LONGITUDINAL VERTICAL PROJECTION
FACING S69°20' E

SCALE 1" = 40' - COMPILED BY M. HOWARD MILLIGAN FROM
MAPS NOS 32, 34, 136 OF THE NEW JERSEY ZINC EXPLORATION CO
FOR THE DELAWARE-PACIFIC EXPLORATION CO - FEB 12 1957

ALL ASSAY WIDTHS ARE GIVEN NORMAL TO VEIN AND ARE LISTED
AS FOLLOWS: - ASSAY WIDTH - / Zn - Pb - Ag SAMPLES ON
450 AND 350 LEVEL ARE PARTLY OR ENTIRELY OXIDIZED, AND
SLOPE SURVEYS BY TAPE AND BRUNTON

LEGEND

Js-Q Jasperoid zones

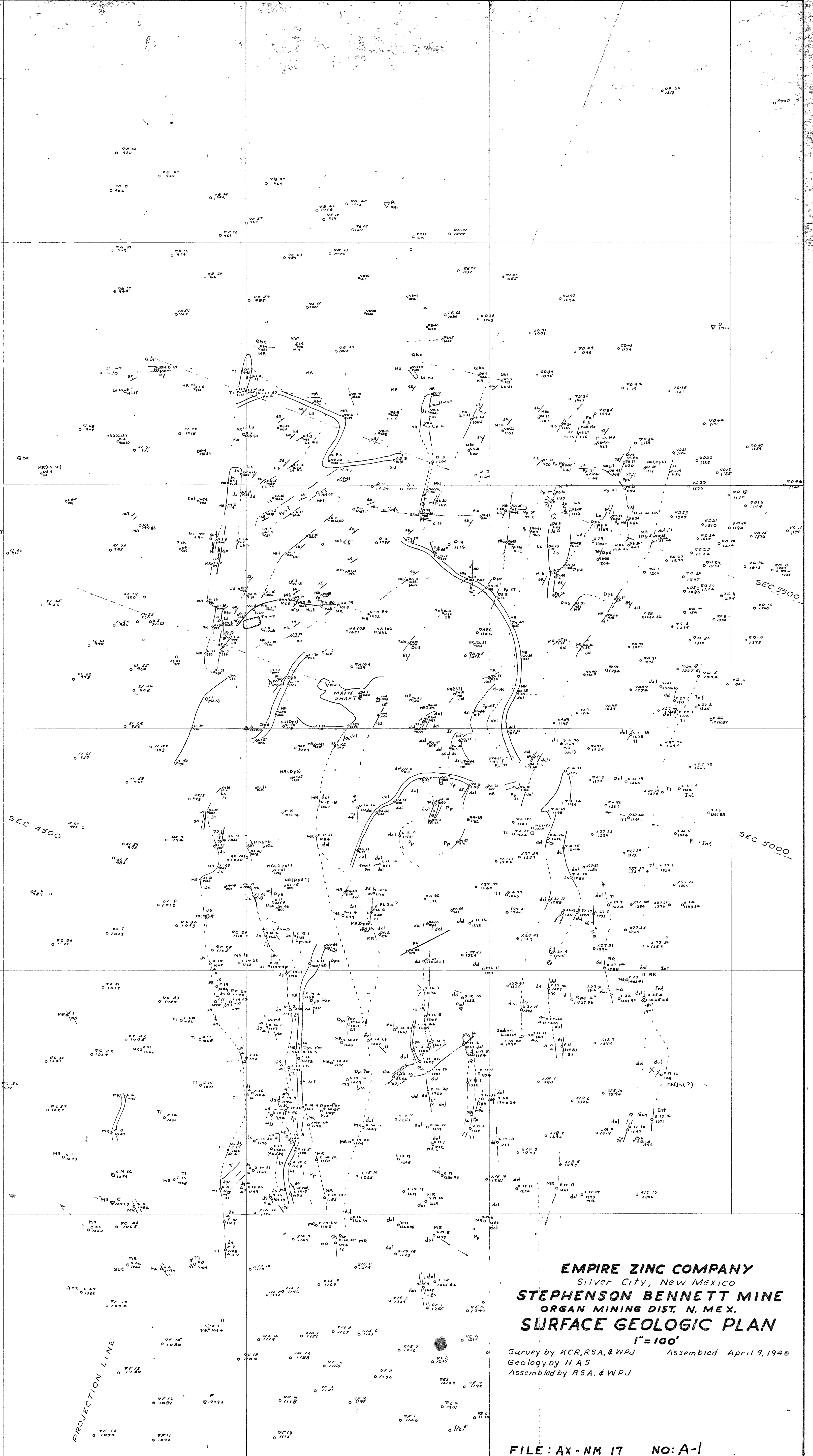
SEDIMENTARY

- MR Mantle rock
- Qbt Boulder train Quarternary
- TI Talus
- Pub Upper blue ls.
- Plx Recrystallized ls. } Pennsylvanian
- Pps Parting (?) shale
- Mhl Hanover ls.
- Mlb Lower blue ls. } Mississippian
- Mab Augen (?) beds
- Dps Percha shale - Devonian
- dol Fusselman, Montoya } Silurian-Ordovician
& El Paso dolomites
- Sch Schistose rock

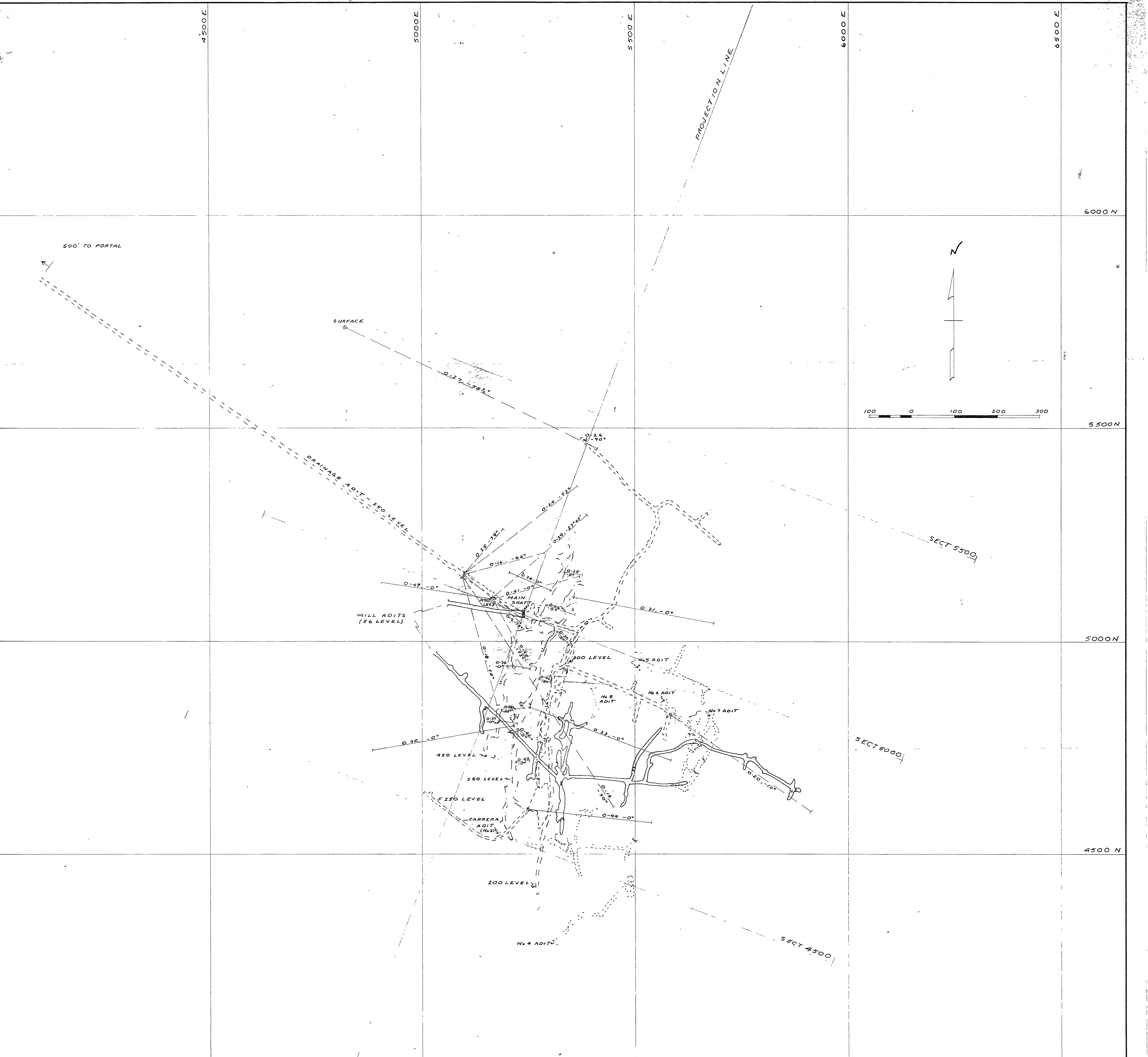
IGNEOUS

- Pp Porphyry
- Int Intrusive

Note Elevations based on arbitrary datum



EMPIRE ZINC COMPANY
 Silver City, New Mexico
STEPHENSON BENNETT MINE
 ORGAN MINING DIST. N. MEX.
SURFACE GEOLOGIC PLAN
 1" = 100'
 Survey by KCR, RSA, & WPJ Assembled April 9, 1948
 Geology by H A S
 Assembled by RSA, & WPJ



LEGEND

- UPPER ADIT LEVELS
- == 56 OR MILL ADIT LEVEL
- == 200 LEVEL
- == 250 LEVEL (DRAINAGE ADIT)
- == 350 LEVEL
- == 450 LEVEL
- HORIZONTAL DDH
- INCLINED DDH

ELEVATIONS

- (DATUM ASSUMED)
- 1038' COLLAR MAIN SHAFT
- TRACK ELEVATIONS @ MAIN SHAFT
- 1002' 56 OR MILL LEVEL ADIT
- 808' 250 LEVEL
- 706' 350 LEVEL
- 606' 450 LEVEL
- 849' 200 LEVEL @ NORTH FACE
- TRACK ELEVATIONS @ PORTAL
- 1154' CARRERA (No 3) ADIT
- 1262' No 4 ADIT
- 1150' No 5 ADIT
- 1160' No 6 ADIT
- 1199' No 7 ADIT
- 1137' No 8 ADIT

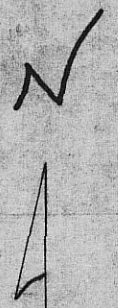
Note Mill (56) Level and 250 Level surveyed by transit
 with exception of 250 drainage adit Drainage
 adit plotted by Brunton bearing. All other levels
 and adits surveyed by string compass

NEW JERSEY ZINC EXPLORATION CO
 HANOVER, NEW MEXICO
 STEPHENSON - BENNETT MINE
 ORGAN MINING DISTRICT, N MEX
COMPOSITE LEVEL PLAN
 1" = 100'

Assembled by H.L.S. Nov 20, 1948
 Traced by W.P.J.

5000 E

5500 E



LEGEND: Proposed short Diamond drill holes
Bennett Vein SH # 30
Page-Steph Veins P # 20

PROJECTION LINE

5000 W

5000 W

SECTION 5000

O-40 Horz

PAGE VEIN

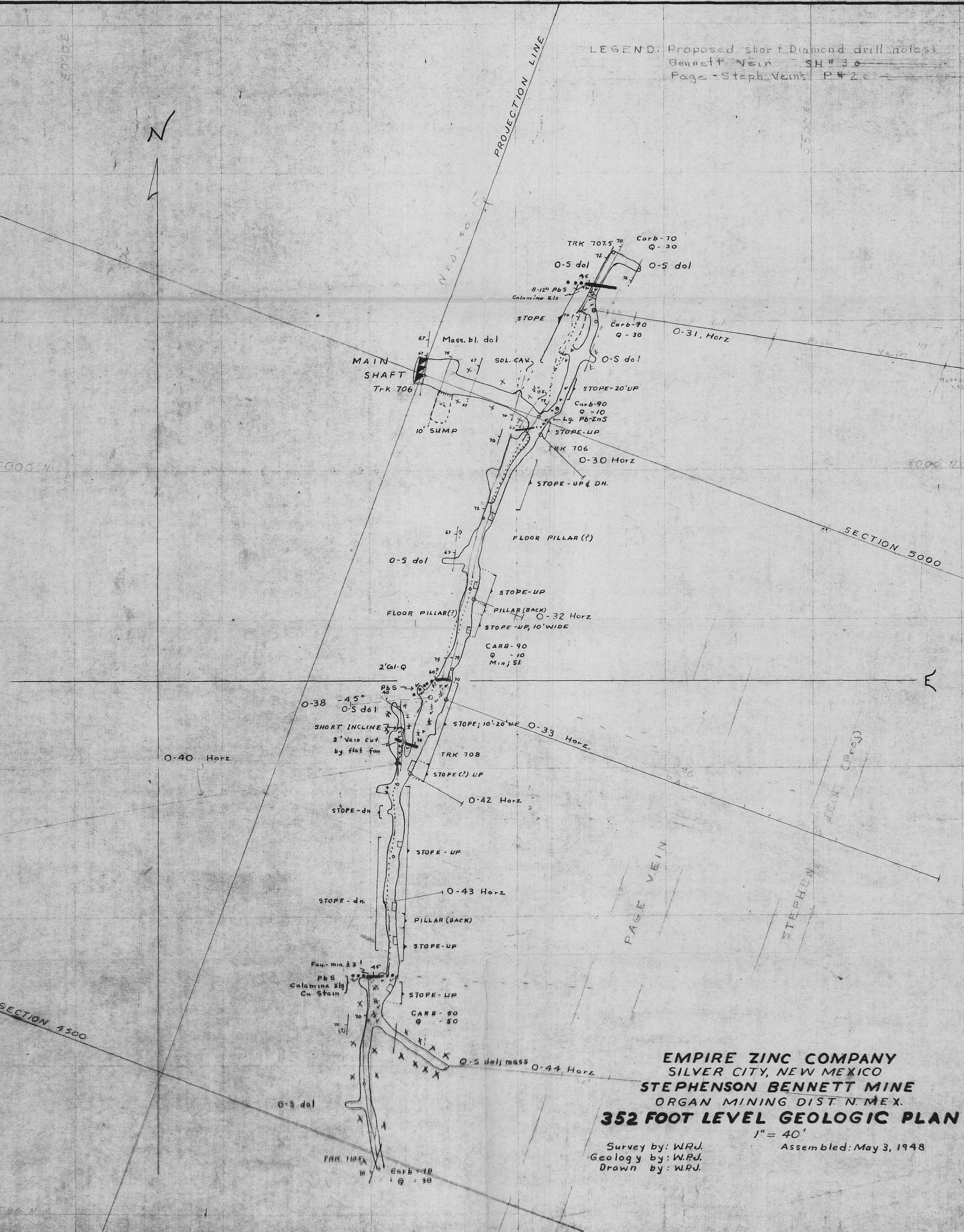
STEPHENSON

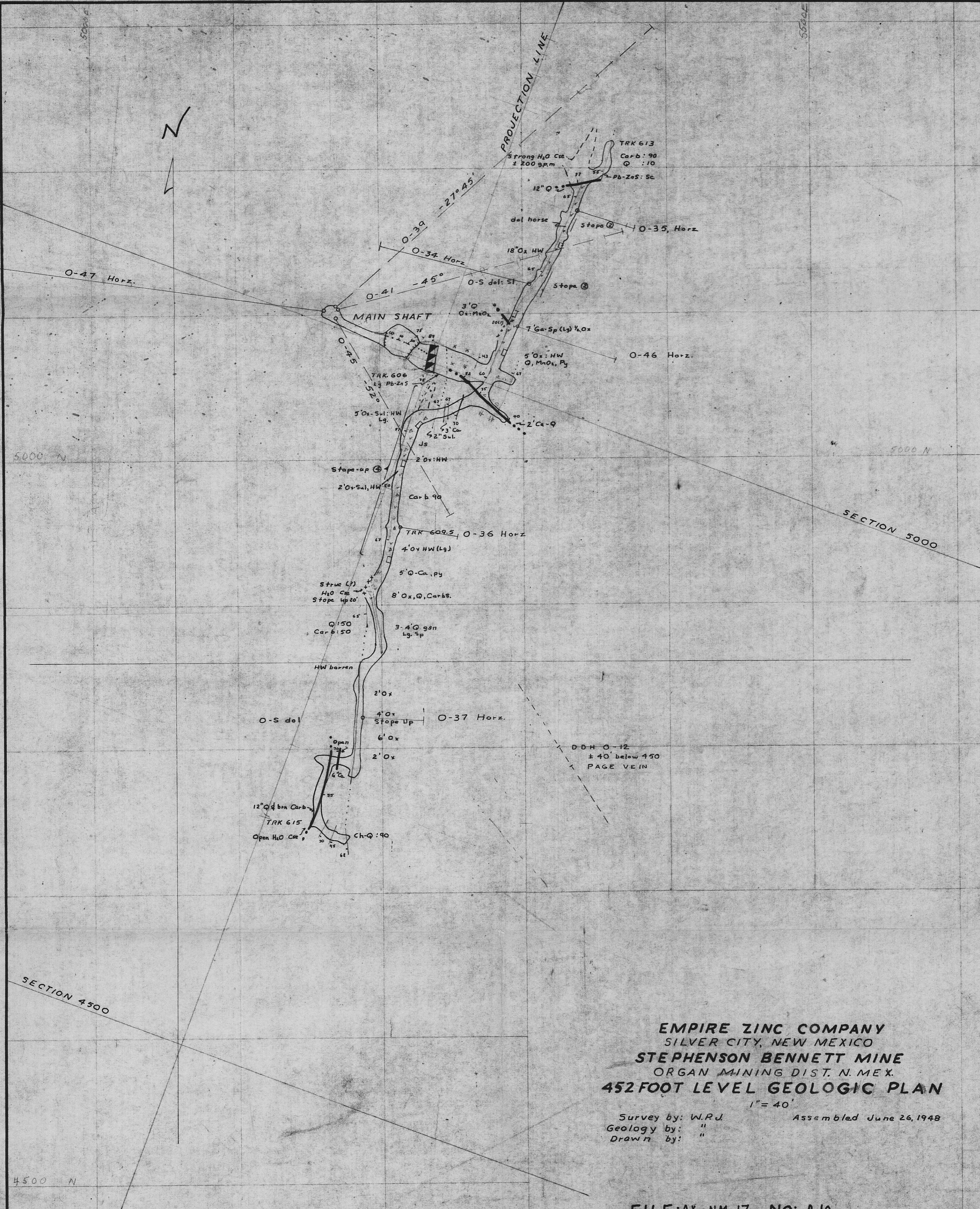
SECTION 4500

EMPIRE ZINC COMPANY
SILVER CITY, NEW MEXICO
STEPHENSON BENNETT MINE
ORGAN MINING DIST. N. MEX.
352 FOOT LEVEL GEOLOGIC PLAN
1" = 40'

Survey by: W.R.J.
Geology by: W.R.J.
Drawn by: W.R.J.
Assembled: May 3, 1948

FILE: AX-NM 17 NO: A8





EMPIRE ZINC COMPANY
 SILVER CITY, NEW MEXICO
STEPHENSON BENNETT MINE
 ORGAN MINING DIST. N. MEX.
452 FOOT LEVEL GEOLOGIC PLAN
 1" = 40'

Survey by: W.P.J. Assembled June 26, 1948
 Geology by: " "
 Drawn by: " "

PROJ MAJOR CROSS FAULT



(SULFIDES) 10 4 NORM
3 1 Ag 7 1 Pb, 49 Zn

0-39 -27°45'

1/2 DOL
1/2 SILICATE

V E I N

0-41 -45°

1 6 NORM-2 2 Ag, 5 6 Pb, 0 5 Zn
2 4' NORM 2 5 Ag, 5 2 Pb, 3 8 Zn
2 4' NORM-4 2 Ag, 10 6 Pb, 13 6 Zn
(OXID)

← PROB CROSS FAULT IN THIS AREA

SECT 5000

DOWNWARD PROJ
OF MAIN SHAFT

0-45 -52°

B E N N E T T

2 5 NORM (1/3 OXID)
2 5 Ag, 10 3 Pb, 6 6 Zn

PROJ LINE

STEPHENSON-BENNETT MINE
ORGAN DISTRICT, N MEX
PLAN OF 570 FOOT
LEVEL HORIZON
1" = 40'

DRAWN BY WPJ 10-19-48

FILE AX-NM17-AIINJ.Z EXPLOR CO



12' NORM (OYID)
2.1 Ag, 5.5 Pb, 8.4 Zn

4' NORM (SUL)
1.7 Ag, 6.9 Pb, 2.8 Zn

19' NORM (SUL)
0.6 Ag, 1.8 Pb, 2.0 Zn

0-24 - 62°

0-16 - 66°

9.7 NORM - 2.9 Ag, 6.7 Pb, 7.0 Zn

16.0 NORM - 0.32 Ag, 0.77 Pb, 3.5 Zn

1.6 NORM - 1.4 Ag, 1.9 Pb, 10.3 Zn (OYID)

0-9 - 70°

SECT 5000

5' NORM (SUL)
2.6 Ag, 5.8 Pb, 5.4 Zn
12.7' NORM
0.8 Ag, 0.3 Pb, 2.2 Zn

SILICATE VEIN ZONE

DOWNWARD PROJ.
MAIN SHAFT

PROJ. LINE

STEPHENSON-BENNETT MINE
ORGAN DISTRICT, N. MEX
PLAN OF 650 FOOT
LEVEL HORIZON
1"=40'

DRAWN BY: W.P.J.

10-19-48

FILE AX-NM 17-A12 N.J.Z. EXPLOR. CO.

1200

1200

1000

1000

800

800

600

600

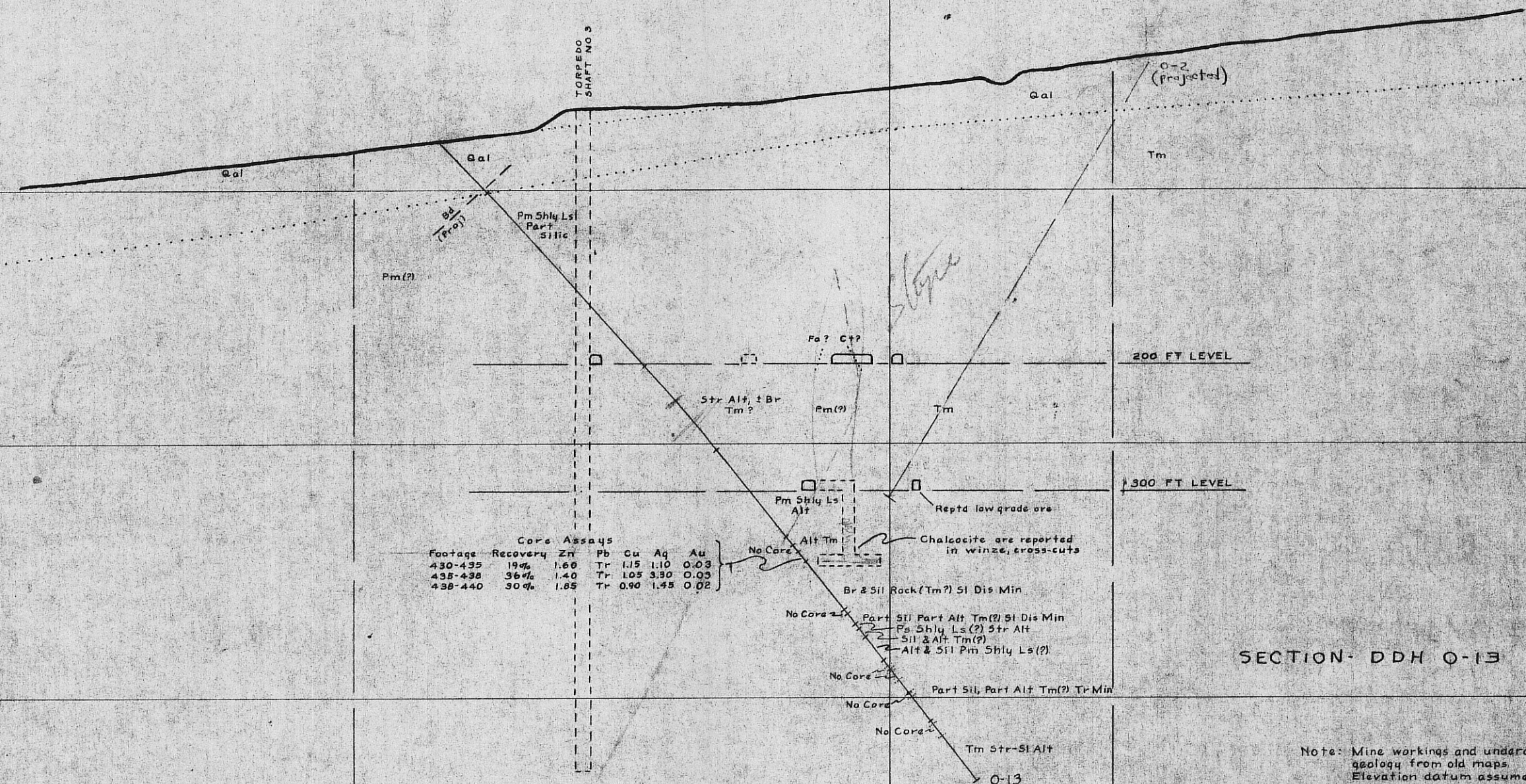
400

REFERENCE LINE

REFERENCE LINE

TORPEDO JONES WELL NO 2

PAPOOSE TORPEDO



THE EMPIRE ZINC CO
 SILVER CITY, NEW MEXICO
ORGAN DISTRICT
 DONA ANA COUNTY, NEW MEXICO
MEMPHIS-TORPEDO AREA
SECTION 3746
 LOOKING N 23° E
 SCALE: 1"=100'
 ASSEMBLED: APRIL, 1947 BY: RMK
 TO DATE: BY:
FILE AX-NM17NO. 84

1200
000
800
600
400

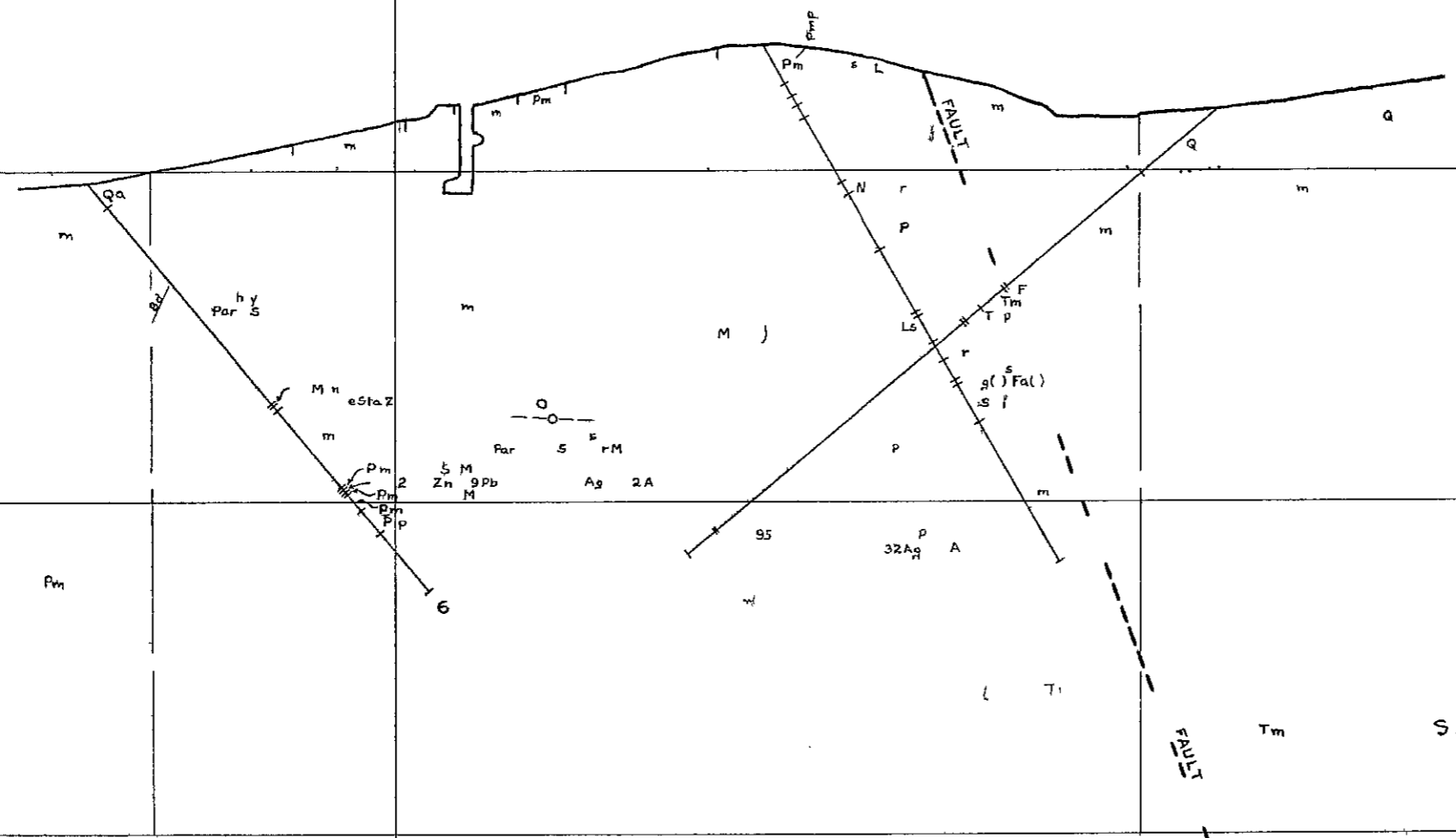
1200
000
800
600
400

REFE EN E L N E

R R E N C L I

M A Y
H I

M H S
B E M

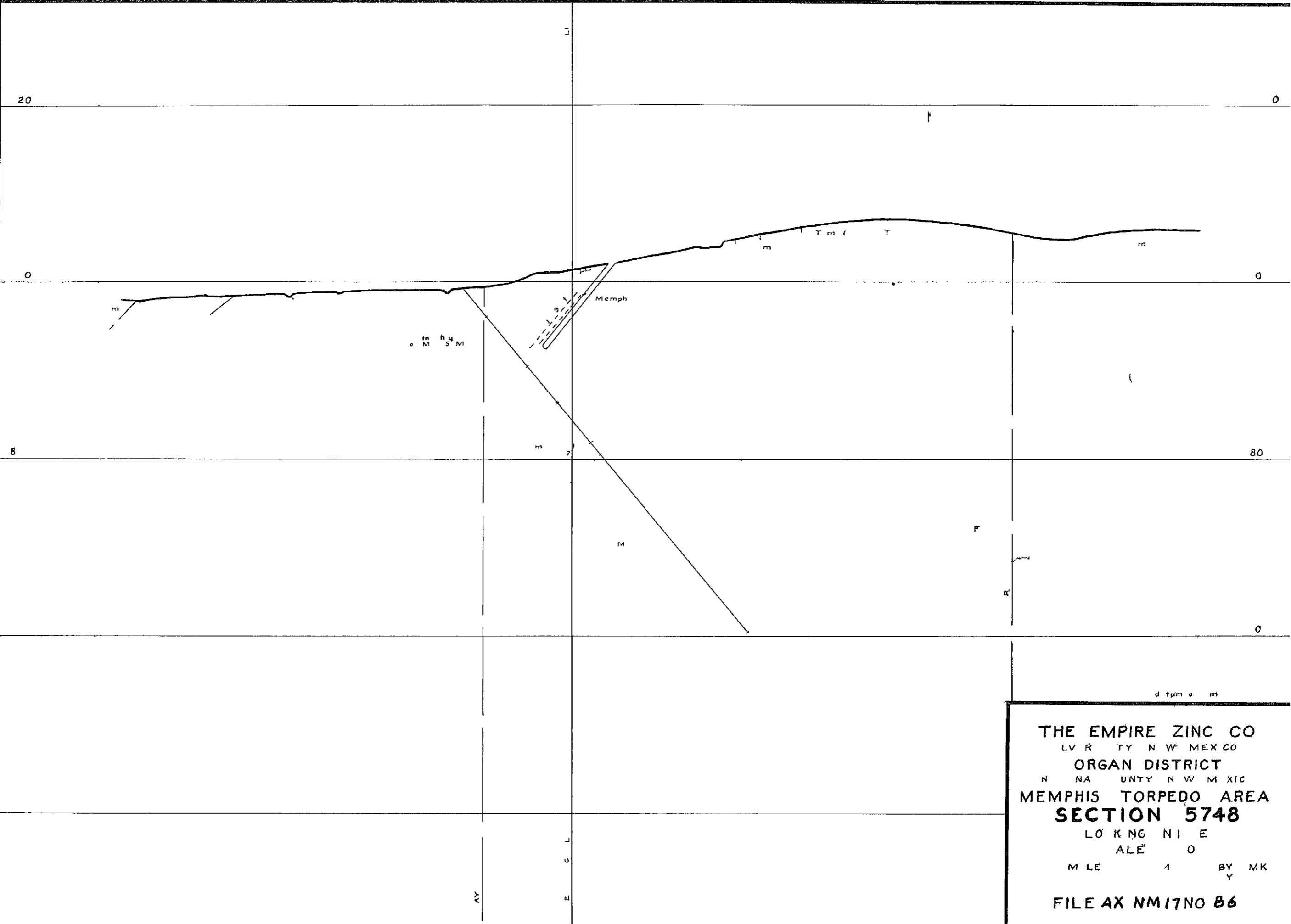


SECTION DDH 0608 & 010

Not E evat on dat in a umed

THE EMPIRE ZINC CO
 L E R T Y N E W M X
ORGAN DISTRICT
 O N A N A N N E W M E X C O
MEMPHIS TORPEDO AREA
SECTION 5536
 LOOKING N17½ E
 SCALE 1 100
 ASSEMBLED APR L 47 R R
 T DATE Y

FILE AX-NM17NO B5



d t u m a m

THE EMPIRE ZINC CO
 LV R TY N W MEX CO
ORGAN DISTRICT
 N NA UNTY N W M XIC
MEMPHIS TORPEDO AREA
SECTION 5748
 LO K NG NI E
 ALE O
 M LE 4 BY MK
 Y
FILE AX NM17NO 86

00

1000

800

600

60

40

40

PAUSE
TORPE

TORPE
E WELL 0.2

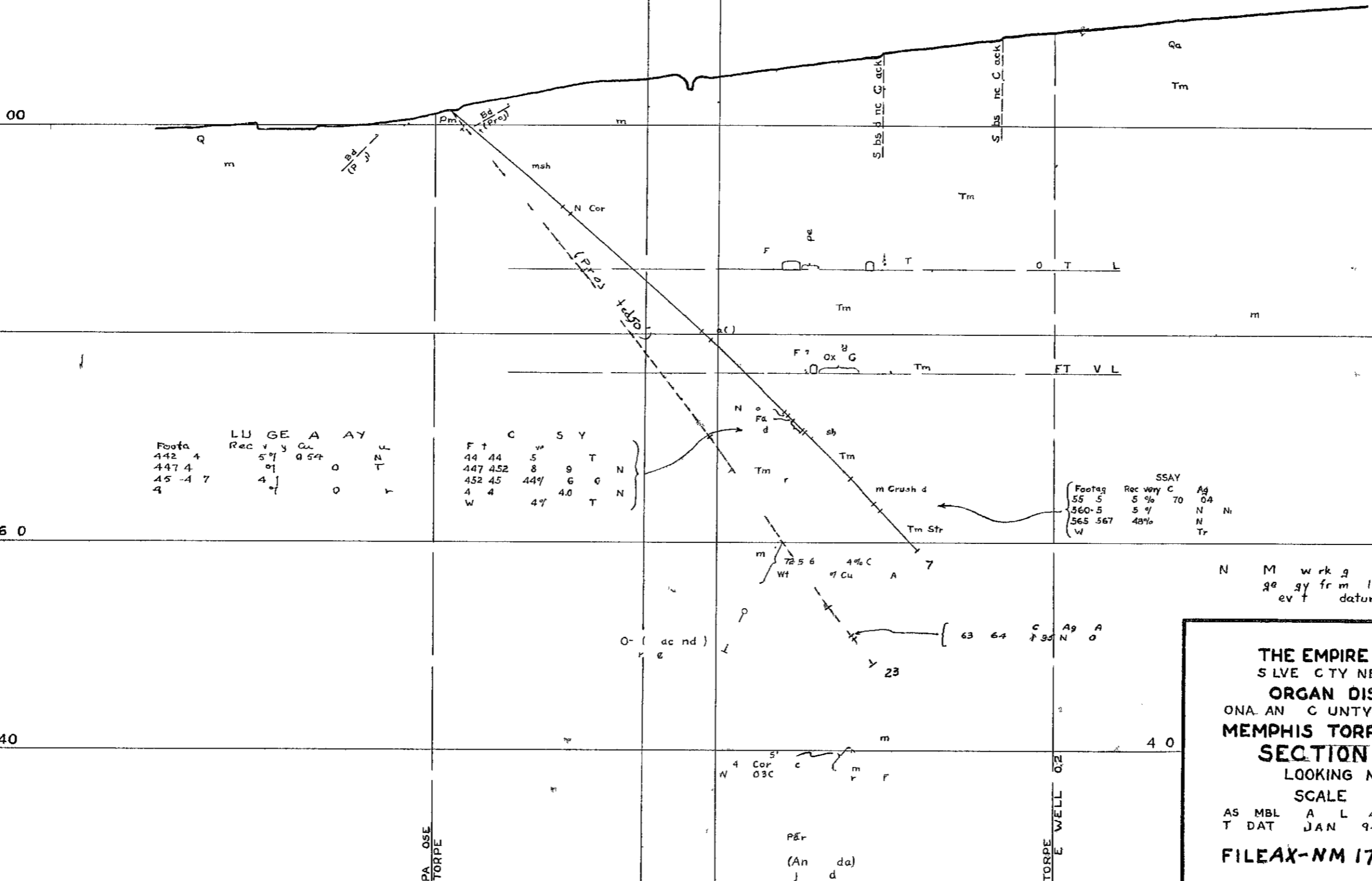
Foota	LU	GE	A	AY
442 4	5%	0.54	0	T N L
447 4	0%	0	0	
454 7	4%	0	0	Y
4				

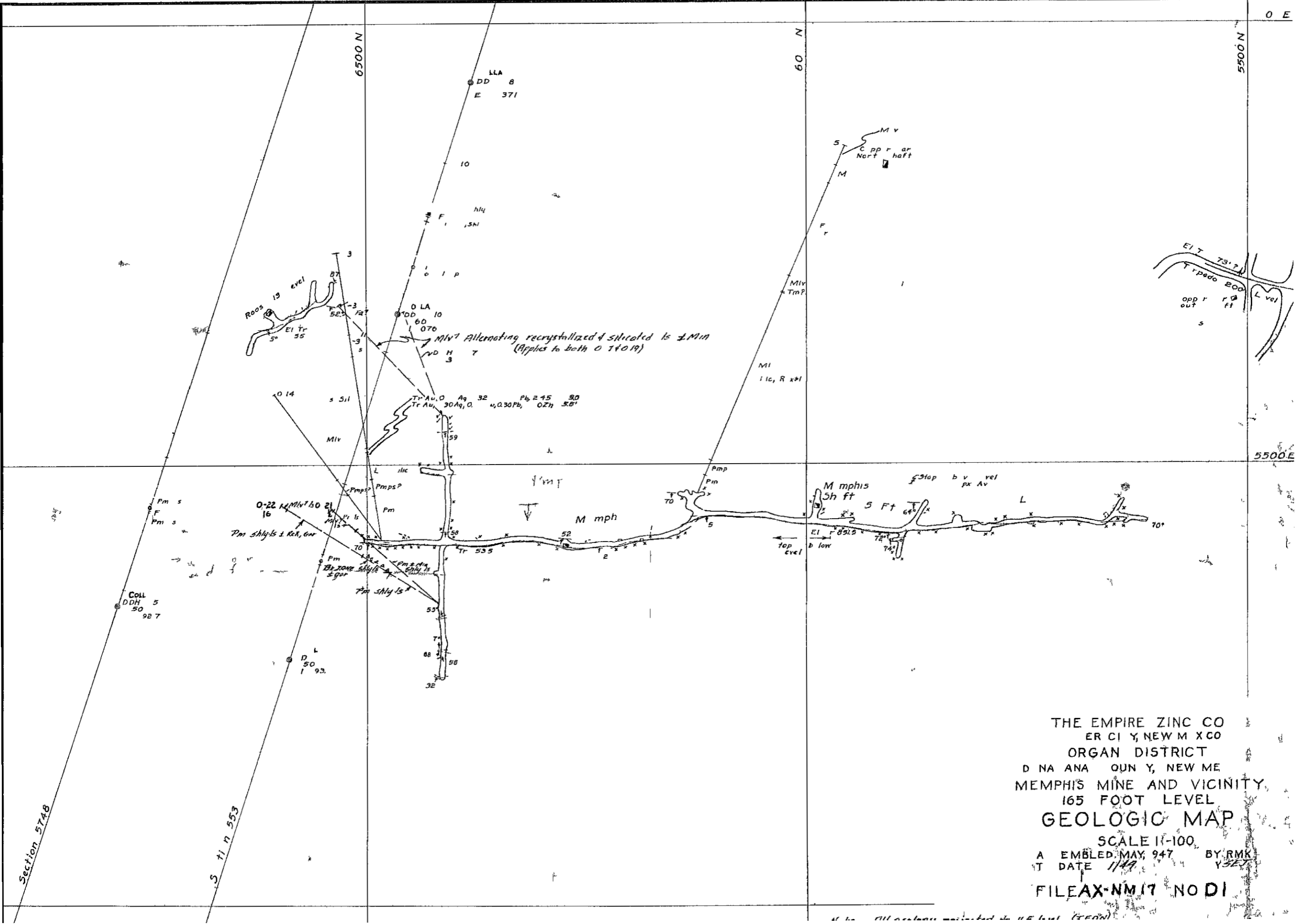
F	C	S	Y
44 44	5%		T
447 452	8%	9	N
452 45	44%	6	G
4 4	4%	4.0	T
W			

Footag	Rec	very	C	Ag
55 5	5%	70	0.4	
560 5	5%		N	N
565 567	48%		N	Tr
W				

N M wrk g d underground
ge gy fr m l p
ev t datum assumed

THE EMPIRE ZINC CO
 SILVE CTY NEW M X
ORGAN DISTRICT
 ONA AN C UNTY NEW MEX CO
MEMPHIS TORPEDO AREA
SECTION DDH O 7
 LOOKING N23 E
 SCALE 10
 AS MBL A L 47 Y R R
 T DAT JAN 949 Y W P J
FILEAX-NM 17 NO B 7





THE EMPIRE ZINC CO
 ER CI Y, NEW M X CO
 ORGAN DISTRICT
 D NA ANA QUN Y, NEW ME
 MEMPHIS MINE AND VICINITY,
 165 FOOT LEVEL
GEOLOGIC MAP
 SCALE 1"=100'
 A EMBLED MAY, 1947 BY RMK
 T DATE 1/19 Y 327
FILE AX-NM17 NO DI

Section 5748

S. T. N. 553

LLA
DD 8
E 371

Miv? Alternating recrystallized & silicated ls ± Min
(Applies to both 0 T & 0 19)

Tr Au, O Ag 32 Pb 245 30
Tr Au, 30 Ag, O 4, 0.30 Pb, 0.2h 5.0'

0-22 Miv 60 21
16
Pm shly ls ± Kar, Gar

M mph
5h ft
5 Ft
64'

Coll DDH 5 92 7

D 50 1 93

0 E

5500 N

60 N

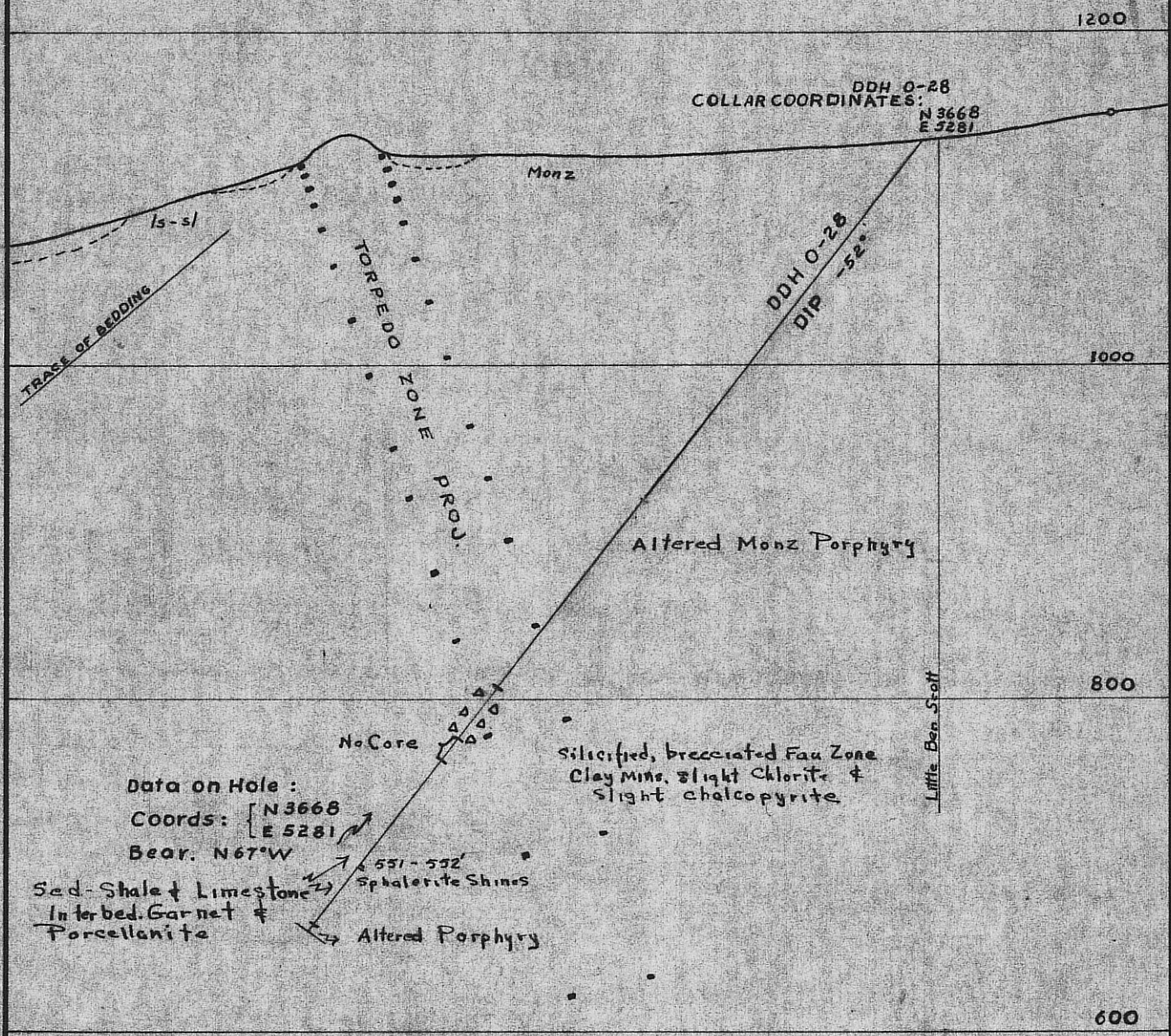
6500 N

5500 E

EL T 73'
T r pedo 200
opp r r ft
L vel

top evel

70°



Data on Hole :

Coords: [N 3668
E 5281]

Bear. N 67° W

Sed. Shale & Limestone
Interbed. Garnet &
Porcellanite

No Core

551-552
Sphalerite Shines

Altered Porphyry

Sulfidized, brecciated Fau Zone
Clay mins, slight Chlorite &
slight chalcopryite

Altered Monz Porphyry

Little Ben Staff

DDH 0-28
COLLAR COORDINATES:
N 3668
E 5281

DDH 0-28
DIP -52°

Monz

ls-sl

TRACE OF BEDDING

TORPEDO
ZONE
PROD.

1200

1000

800

600

400

THE EMPIRE ZINC CO
SILVER CITY, NEW MEXICO
ORGAN DISTRICT
DONA ANA COUNTY, NEW MEXICO
LITTLE BEN SCOTT AREA
SECTION ALONG DRILL HOLE 0-28
LOOKING N 23° E

SCALE: 1"=100'

ASSEMBLED: NOVEMBER 1947 BY: T.F.O.
TO DATE: JAN. 1949 BY: W.P.J.



FILE AX-NM 17 NO. 6 2

1200

1000

800

600

Foss North
Franklin

Franklin
(?)

Alluvium

DDH O-29
DIP -52 1/2°

Altered Porphyry

Torpedo Fan

Sil & Breccia Fault Zone

Limestone
Alt-Gar.
Ser & Py.

Data on Hole:
Coords: { N 2672
 E 5191
Bear. S 84°W

400

THE EMPIRE ZINC CO
SILVER CITY, NEW MEXICO
ORGAN DISTRICT
DONA ANA COUNTY, NEW MEXICO
FRANKLIN AREA

SECTION ALONG DRILL HOLE O-29
LOOKING N 6°W

SCALE: 1" = 100'

ASSEMBLED: NOVEMBER 1947
TO DATE :

BY: KCR
BY:



FILE AX-NM17 NO H1