LITTLE WAR CREEK AREA

SECTOR II COPPER RIDGE BELT

HANCOCK COUNTY, TENNESSEE

DMEA DOCKET NO. 4850 CONTRACT Idm - E 1174

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FINAL REPORT

F. T. Fischer

October 10, 1960

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AX-TENN	B-809	AX-TENN	C-1431
"	B-832	"	B-1433
"	B-833	"	B-1434
"	B-842	"	B-1435
"	C-1366	"	C-1449
"	C-1377	"	C-1450
"	C-1387	"	B-1466
"	B-1390	"	C-1479
"	C-1397	"	C-1480
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Diamond Drill Logs	In Envelope
LW-54 to LW-106 Inclusive	"
Legend-Tennessee Diamond Drill Logs	"

Summary and Conclusions

Work in the Little War Creek Area has shown the existence of three areas of zinc mineralization on the Easter Collins property, the M. C. Tunmire and James Brewer properties, and the Lew Tunmire property. From 1952 to 1954 The New Jersey Zinc Company drilled a total of 33 holes, four of which (LW-6, 7, 13 and 27) encountered the equivalent of a 15-foot thickness containing 3% zinc or greater. Of these four holes three are located on the Easter Collins and one on the James Brewer property.

Fifty-three additional holes were drilled with DMEA assistance between April 1958 and May 1960. Seven of these encountered the equivalent of a 15-foot thickness containing 3% zinc or greater in two areas, one on the M. C. Tunmire and James Brewer properties and the other on the Lewis Tunmire property (see maps AX-TENN B-1309 and 1310). These two mineralized zones are separated by a distance of 4,000 feet along strike and about 140 feet stratigraphically. Drilling to date on relatively widely-spaced fences has failed to confirm the continuity or minable size of these mineralized bodies. Previous drilling by The New Jersey Zinc Company in the Easter Collins area has shown the same apparent lack of continuity of mineralization.

Additional drilling on closely-spaced centers would provide information as to whether this apparent lack of continuity is the reflection of discrete mineralized bodies or is only the result obtained from sampling a more or less sinuous body by a drilling pattern of lesser density.

The apparent lack of continuity of mineralization coupled with the sparseness of significant drill hole penetrations does not permit

the reliable estimation of tonnage and grade of the mineralized bodies. However, the potential of the Little War Creek Area is regarded as attractive and further exploration is considered to be necessary.

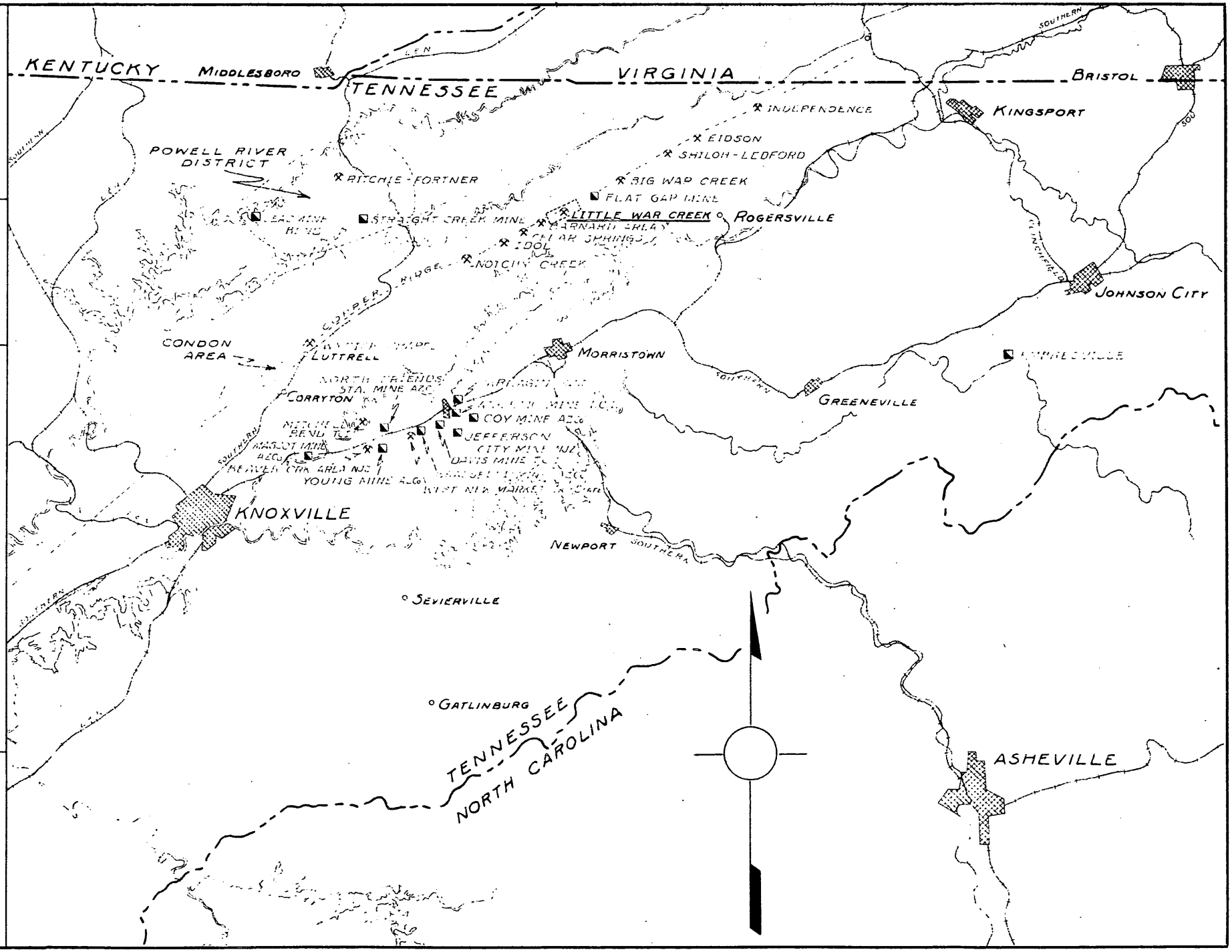
Location

The Little War Creek Area covered by DMEA contract Idm-E-1174 is comprised of 11 properties totalling approximately 1,061 acres in the Copper Ridge Belt, Hancock County, Tennessee. The exterior boundaries of these properties form a roughly rectangular area measuring approximately 12,500 feet in length, along strike, and 4,000 feet in average width. The area lies northwest of the Clinch Valley Road and its approximate center is 3-1/2 miles southwest of the Flat Gap Mine (see map AX-TENN A-1722 following this page).

Property

The properties comprising the Little War Creek project area are shown on maps AX-TENN B-1309 and 1310. The following table lists these properties and their approximate acreage and indicates the manner in which they are controlled by the New Jersey Zinc Company:

Property	Approximate Acreage	How Controlled
M. C. Tunmire, et al	20	N.J.Z.Co. Fee
M. C. Tunmire, et al	30	Mining and Mineral Rights
Easter Collins	103	ditto
Lewis Tunmire	124 136	ditto
James Brewer	96	ditto
Willis Tunmire	17	ditto
H. C. Livesay	100	Option Contract
H. C. Bowlin	135	ditto
W. M. Brewer	100	ditto
Dudley Dalton	96 92	ditto
John Barnard	240	ditto
Total Approximate Acreage	1061	



DRAWN FTF

TRACED

REVISED

CHECKED

APPROVED

THE NEW JERSEY ZINC COMPANY

JEFFERSON CITY, TENNESSEE

EAST TENNESSEE ZINC DISTRICTS

DATE 10-7-60

SCALE 1" = 13 MILES (APPROX)

AX-TENN A-1722

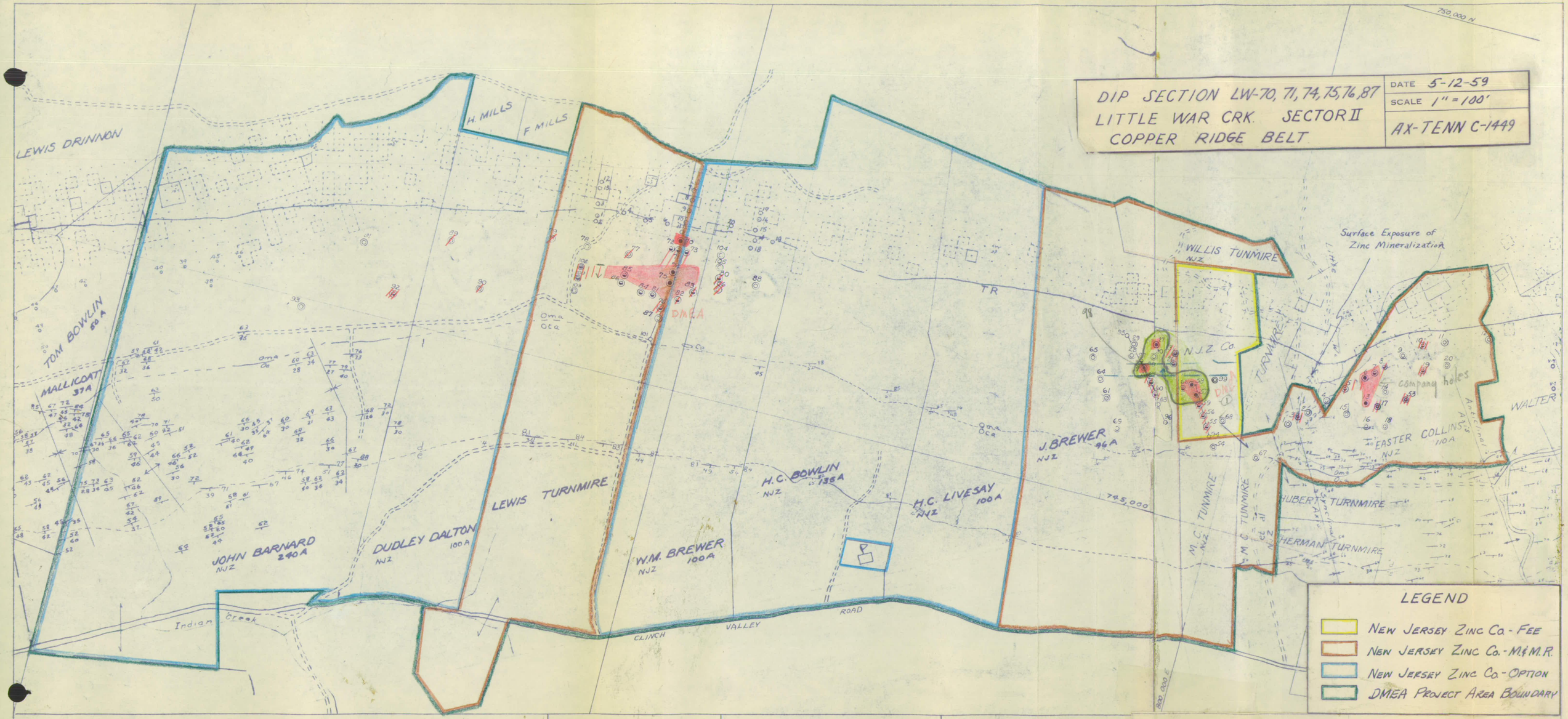
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED. THIS DRAWING MUST BE RETURNED TO THE NEW JERSEY ZINC COMPANY.

X5453A 1M 11-54

History

Excepting the narrow stream valley of Little War Creek, the Kingsport formation within the area is covered by a thick residual mantle. The only known outcroppings of zinc mineralization within the area are found on the southwest side of Little War Creek. Geologic mapping and subsequent geochemical prospecting were done in 1952 by The New Jersey Zinc Company. The presence of strongly mineralized soils was revealed, the most intensely mineralized of which are in proximity to the exposure of zinc mineralization (see accompanying maps AX-TENN B-1309 and 1310). In the period from 1952 to 1954, The New Jersey Zinc Company drilled 33 diamond drill holes totalling 15,457 feet. Four of these (LW-6, 7, 13 and 27) encountered the equivalent of a 15-foot thickness containing 3% zinc, or greater, related to the anomalous soils in and adjacent to the valley of Little War Creek.

On February 26, 1958, DMEA contract Idm-E-1174 was approved. This contract provided for 35,000 feet of diamond drilling at an estimated total cost of $106,780.00. exceptions in audit make cost $105,505.50 In April of the same year drilling was begun under the contract and by the end of May, 1960, 53 holes totalling 35,375 feet had been drilled, fulfilling the terms of the contract. The total of expenditures under this contract was $106,652.60 of which the government contribution amounted to $53,326.30 (Maps AX-TENN B-1309 and 1310 show drill hole locations). Of the 53 holes drilled only seven intersected the equivalent of a 15-foot thickness containing 3% zinc of greater, 14 found mineralization of probable significance but of lesser intensity, and 32 were either barren or showed but scattered traces of zinc mineralization. Logs of these 53 holes are included as part of this report.



THE NEW JERSEY ZINC COMPANY JEFFERSON CITY, TENNESSEE	DRAWN R.E.F. DATE 9-23-57 TRACED SCALE 1"=660'	COPPER RIDGE BELT SECTOR II AREA F	LITTLE WAR CREEK FILE NO. AX-TENN B-1310	COPPER RIDGE BELT SECTOR II AREA F	LITTLE WAR CREEK FILE NO. AX-TENN B-1309

Geology

The Little War Creek Area lies along the southeast slope of Copper Ridge at elevations ranging from 1360 feet at Little War Creek to 1940 feet at the crest of Copper Ridge. Structurally the Little War Creek Area is in the shingle block below the Saltville thrust and above the Copper Creek thrust. The formations underlying the area form a homoclinal structure with an average dip of 39 degrees southeastward and a strike which average N 74° E for the Little War Creek Area as a whole. In detail a prominent strike change is evident, the direction changing from an average of N 67° E in the southwestern part of the Little War Creek Area to N 80° E in the central part and to N 75° E in the northeastern part of the area. This is the most prominent structural anomaly on Copper Ridge.

The area is underlain by the Knox dolomite and the Chickamauga limestone of Ordovician age. That part of the Knox underlying this area is divided into the Mascot, Kingsport and Longview formations. Drilling was confined to the Mascot, Kingsport and uppermost Longview.

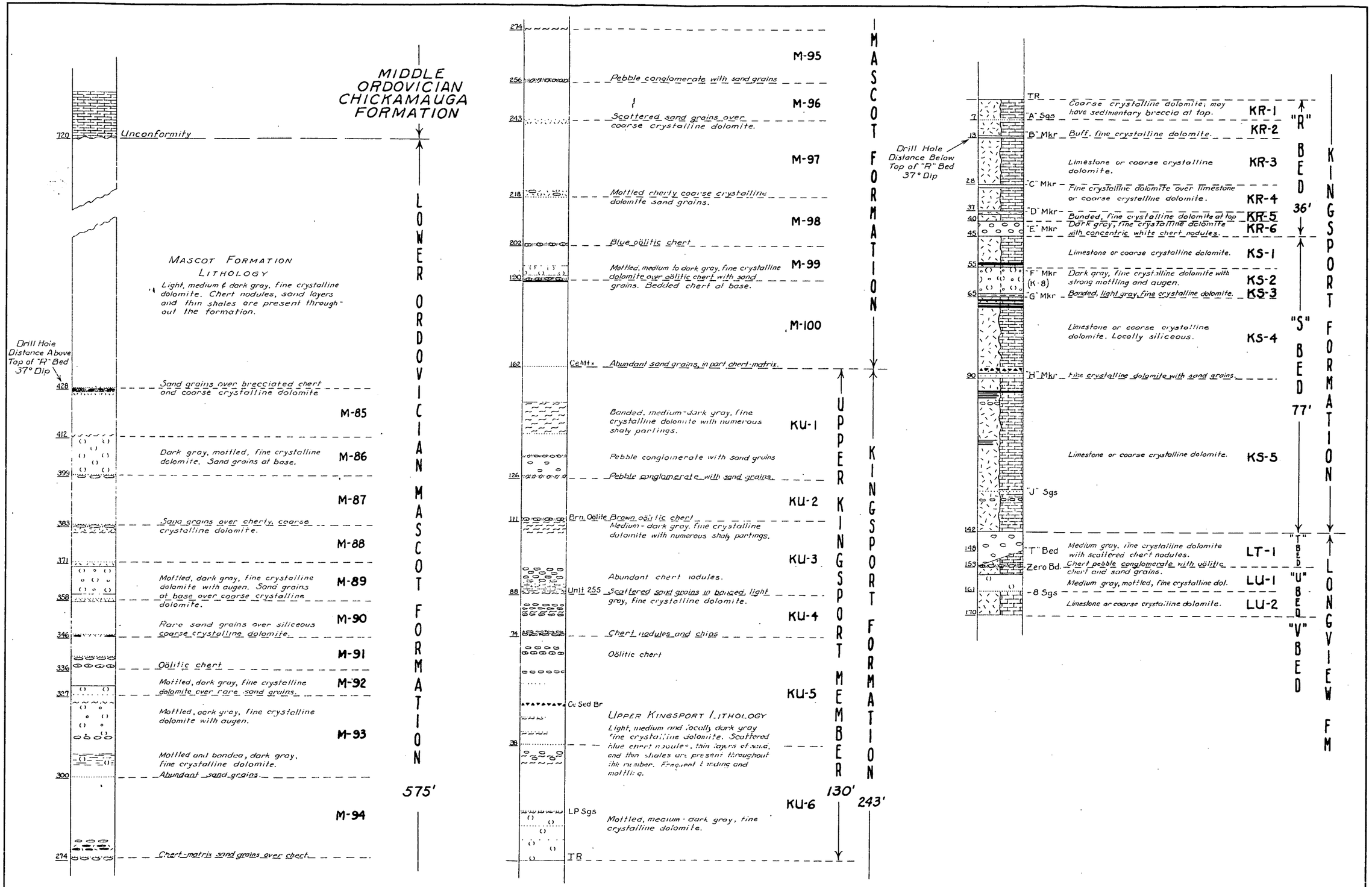
The Mascot formation at Little War Creek is approximately 575 feet thick.[1] This formation is unconformably overlain by the Chickamauga limestone and the base is marked by a thin sandstone sealed with chert known as the Chert-Matrix (CeMtx). Locally the Mascot is brecciated and mineralized (see sections AX-TENN C-1377 and C-1387).

[1] Formation thicknesses are given in true or stratigraphic thickness rather than drill hole measurement.

The underlying Kingsport formation averages approximately 243 feet in thickness and is divided into two units, i.e. the Upper Kingsport and Lower Kingsport members, the division being made at the top of "R" bed (TR horizon). The Upper Kingsport averages approximately 130 feet in thickness. The Lower Kingsport (subdivided into "R" and "S" beds) is approximately 113 feet thick. The base of the Kingsport is marked by the top of the Longview formation ("T" bed). Detailed stratigraphy is shown on the accompanying columnar section following this page.

In gross aspect the lithology of the Mascot and Upper Kingsport formations are virtually identical, consisting essentially of gray, dense, fine-grained dolomites with persistent thin horizons characterized by scattered to abundant sandgrains, with or without a siliceous matrix. The Lower Kingsport formation (subdivided into R & S beds) is composed of fine-grained dense limestone and dolomite and masses of coarse crystalline dolomite. Locally, bodies of coarse sedimentary "rubble" breccia are present, with either white gangue, "rock-matrix" or a mixture of both comprising the matrix material. These breccia bodies are generally dolomite and appear to be of major importance as hosts to Lower Kingsport mineralization.

Upper Kingsport mineralization generally occurs as sphalerite with more or less white gangue dolomite in "crackle" breccias and with either white gangue dolomite or "rock matrix" material or mixtures of both in "rubble" breccias. Lower Kingsport mineralization consists of sphalerite-filled interstices in breccia matrices, sphalerite-filled openings between "rubble" breccia fragments and to some extent the replacement of matrix particles by sphalerite.



SERIAL NUMBER		DATE ISSUED		REFERENCE DRAWINGS	REVISIONS	THE NEW JERSEY ZINC COMPANY	DRAWN FTF	COLUMNAR SECTION	DATE 9-29-1960
						JEFFERSON CITY, TENNESSEE	TRACED FTF	LITTLE WAR CREEK AREA SECTOR II	SCALE 1" = 30'
							CHECKED	COPPER RIDGE BELT	AX-TENN B-1716
							APPROVED		

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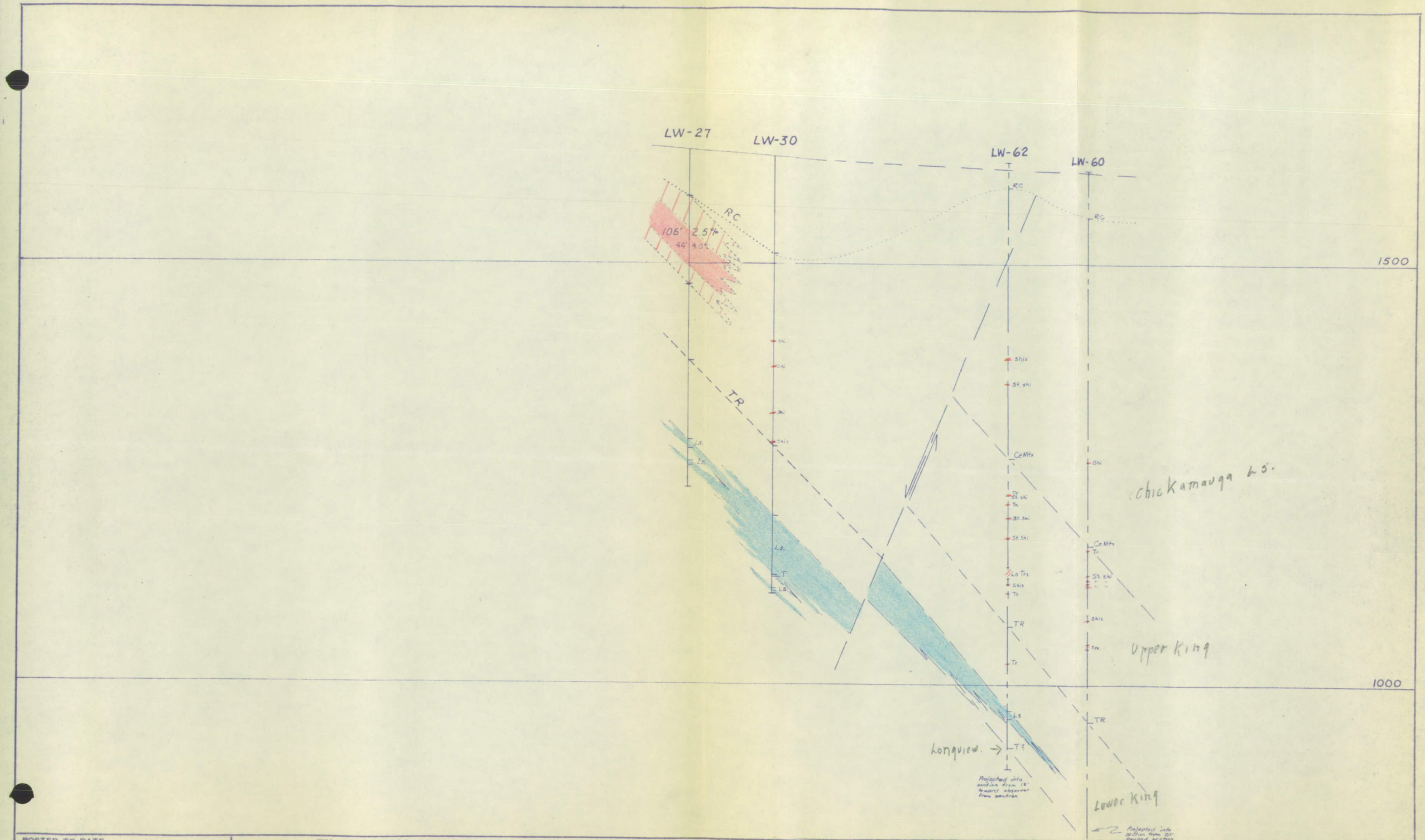
X5453B 1M 11-54

The mineralization found in the course of the recent DMEA project is represented by both Upper and Lower Kingsport occurrences. Three holes (LW-70, 74 and 75; refer to section C-1449) intersected the equivalent of a 15-foot thickness containing 3% zinc or better in the Lower Kingsport member on the Lewis Tunmire property and four holes (LW-57, 58, 94[1] and 98; refer to sections C-1366 and C-1377) intersected the equivalent of a 15-foot thickness containing 3% zinc or better in the Upper Kingsport member on the James Brewer and M. C. Tunmire properties. These mineralized bodies are separated by a distance of approximately 4,000 feet along strike (see map AX-TENN B-1309 and 1310) and attempts to extend either toward the other have so far proven unsuccessful.

[1] Hole LW-94 was drilled at an angle to intersect the mineralization encountered by LW-57 and provide additional information concerning the extent of that mineralization. The mineralization lithology, breccia relationships, etc. were considered to be of such interest that the core was not assayed. The estimate of 115 feet of 4-1/4% zinc is felt to be a close approximation of the true zinc content inasmuch as it falls within the expected limits and confirms the values obtained in hole LW-57. The value of the assay was outweighed by the desireability of preserving the core intact for photography and future study.



POSTED TO DATE
Revised 6-24-60 R.J.F.

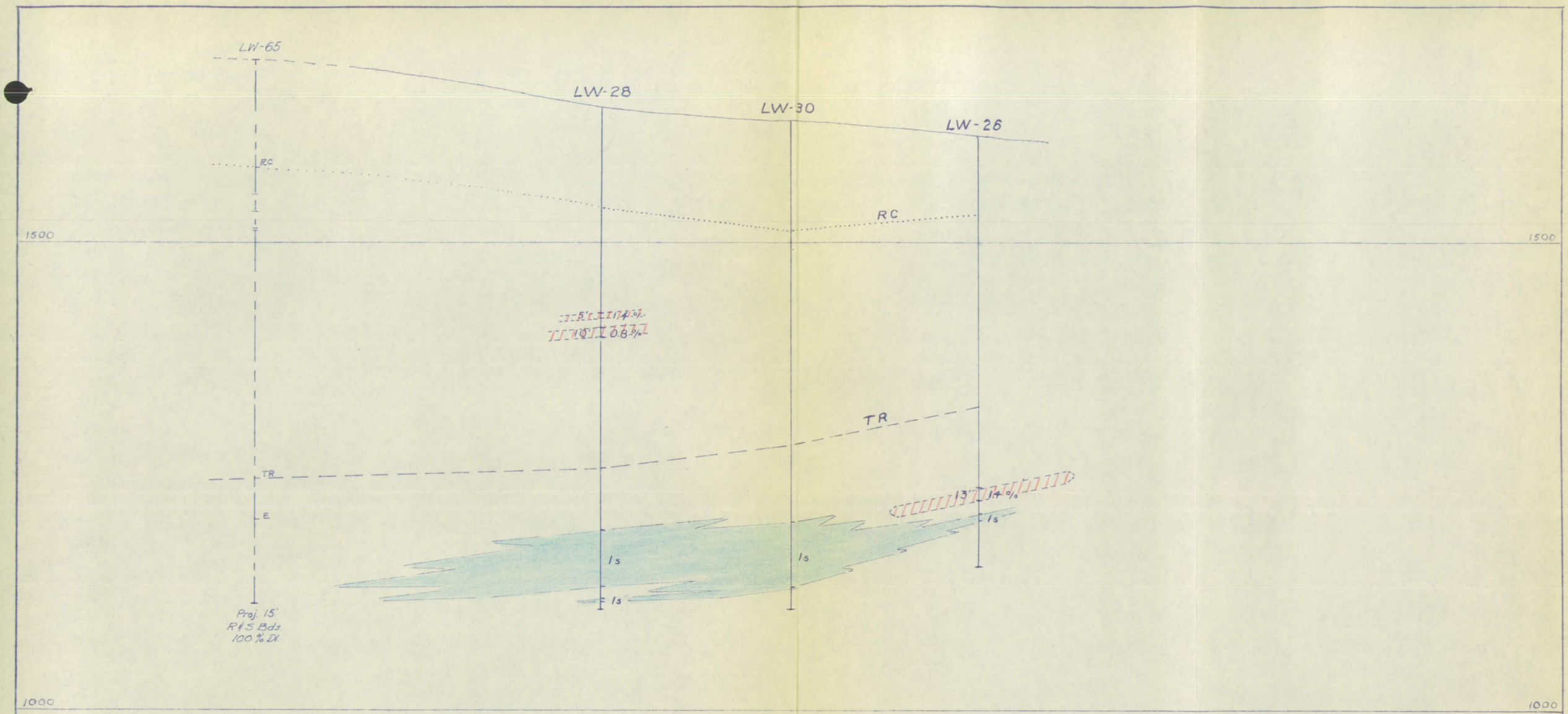
THE NEW JERSEY ZINC COMPANY

ROGERSVILLE TENNESSEE

DRAWN TEW DATE 1-14-54
TRACED SCALE 1" = 100'

SECTOR II AREA F

DISTRICT COPPER RIDGE BELT
FILE NO. AX-TENN 809



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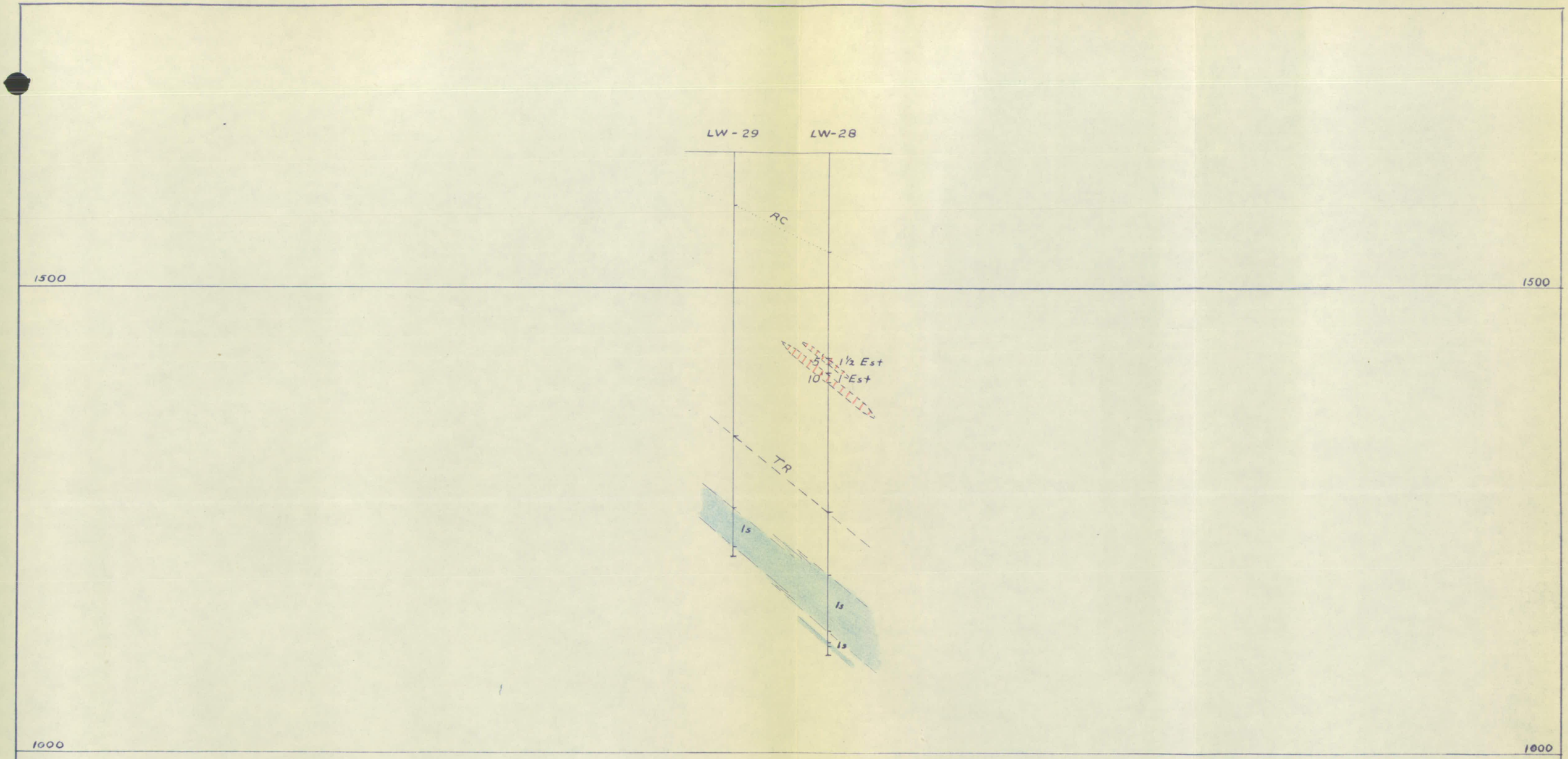
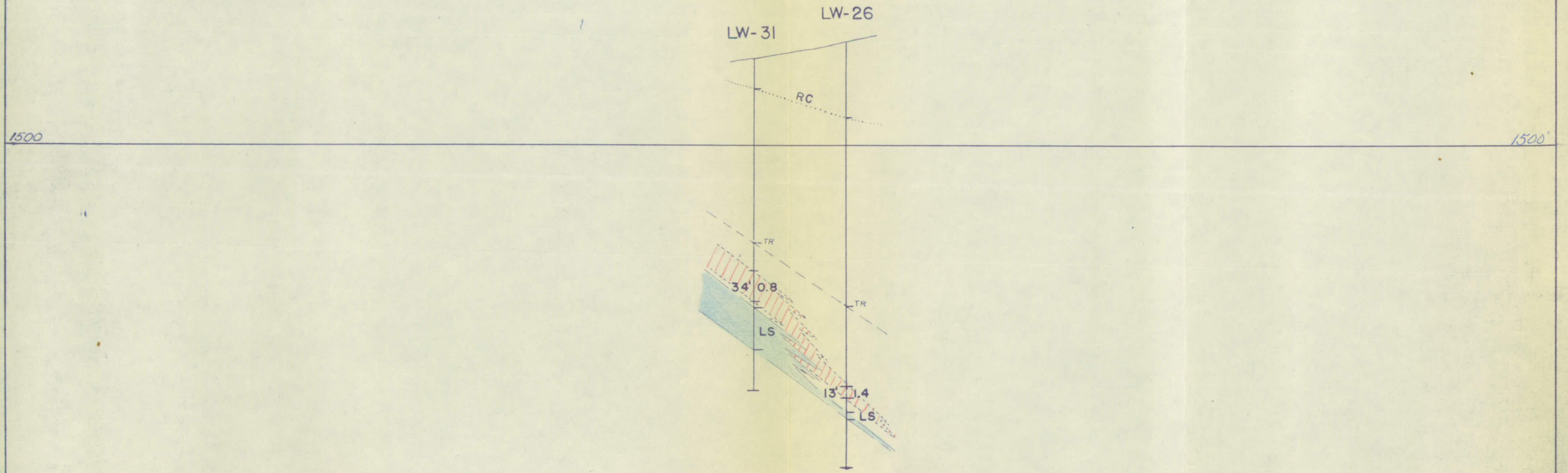
	ROGERSVILLE TENNESSEE	TRACED SCALE 1"=100'	SECTOR II AREA F	FILE NO. AX-TENN 832

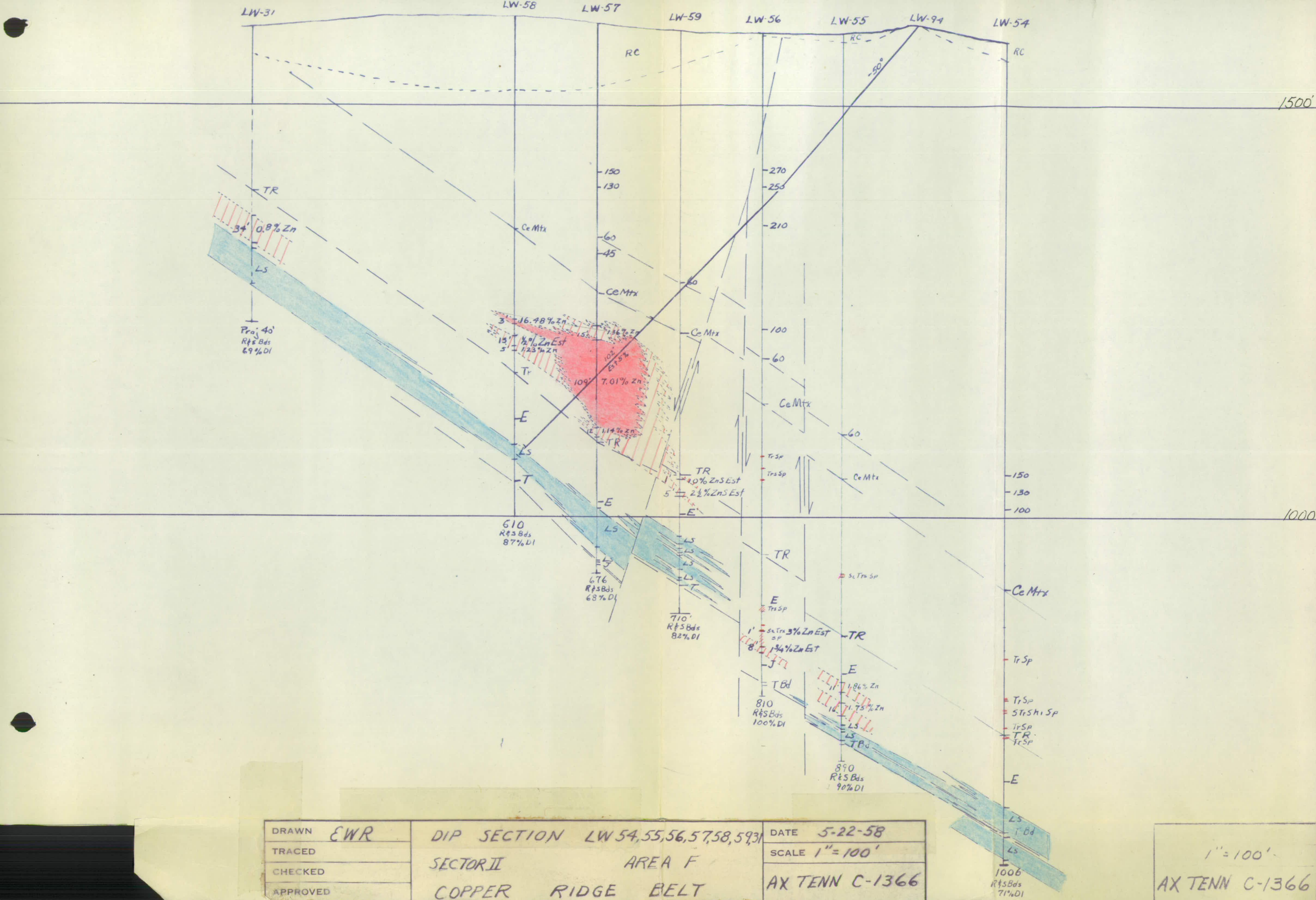


POSTED TO DATE	THE NEW JERSEY ZINC COMPANY	DRAWN TEW DATE 6-24-53		DISTRICT COPPER RIDGE BELT
	ROGERSVILLE TENNESSEE	TRACED SCALE 1" = 100'	SECTOR II AREA F	FILE NO. AX-TENN 833



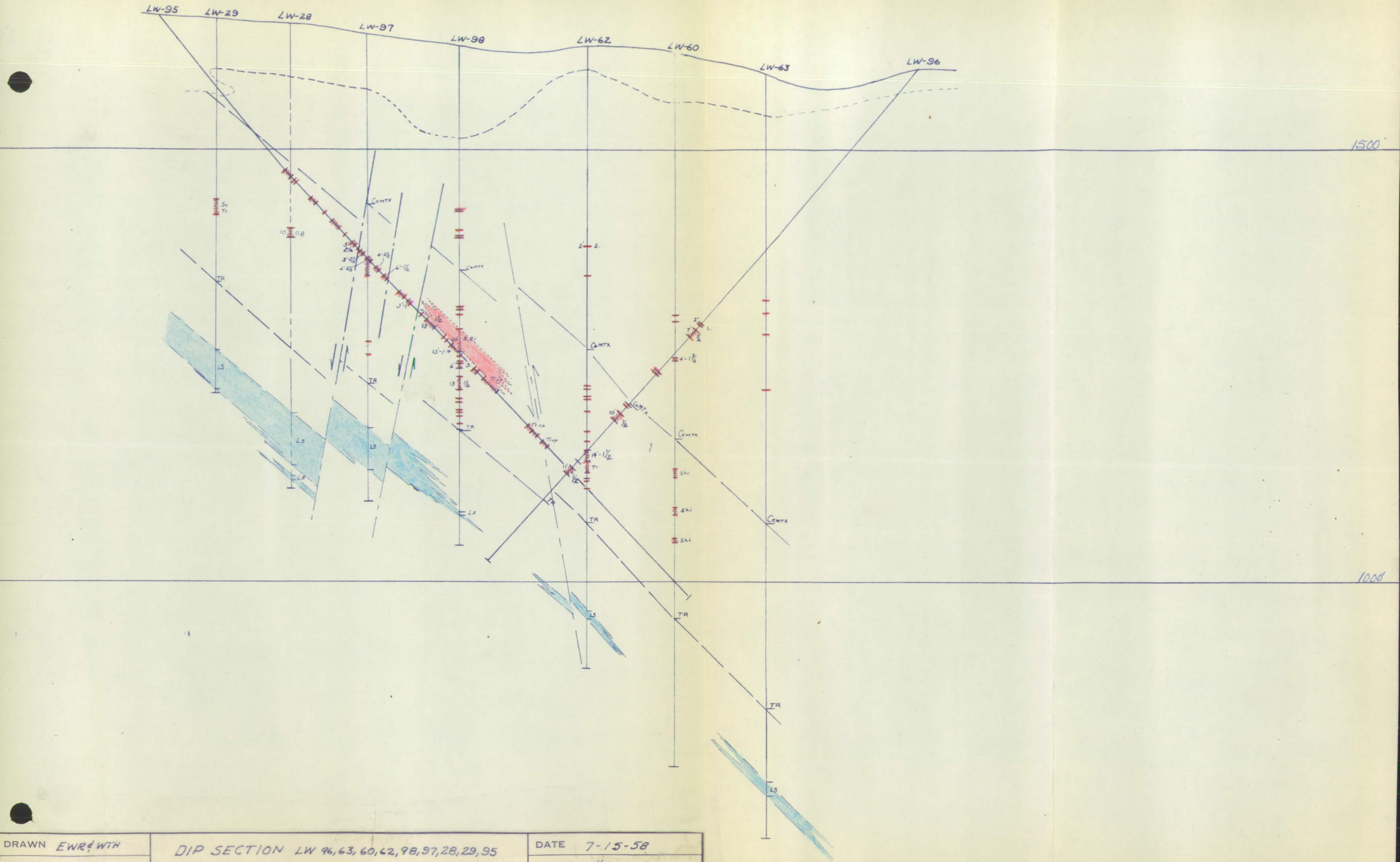
POSTED TO DATE 7-19-60 F.T.F.	THE NEW JERSEY ZINC COMPANY ROGERSVILLE TENNESSEE	DRAWN TEW DATE 2-15-54 TRACED SCALE 1" = 100'	DIP SECTION SECTOR 11 AREA F	DISTRICT COPPER RIDGE BELT, TENN. FILE NO. AX-TENN B-842

X 5407 B 1M 3-53



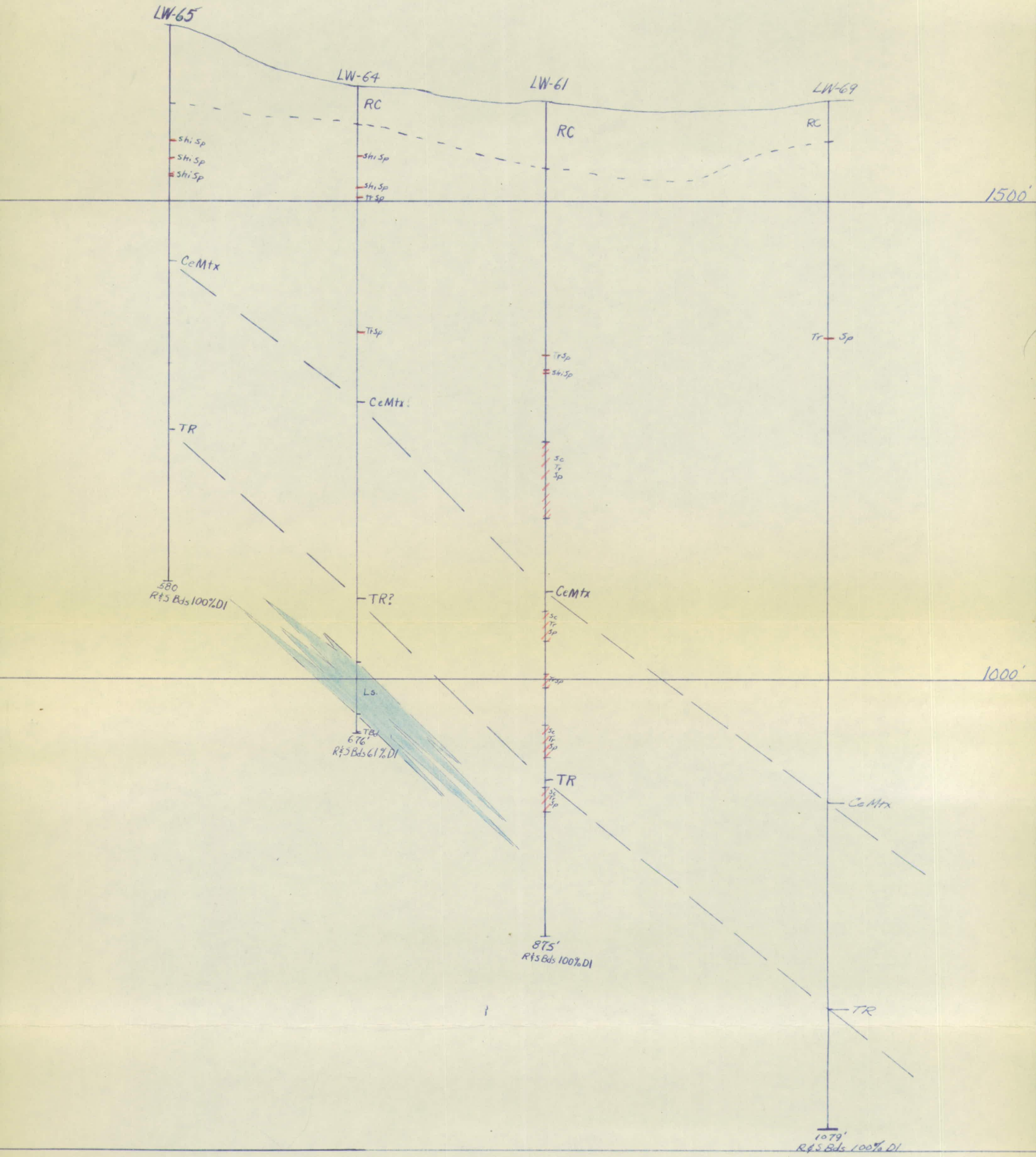
DRAWN EWR	DIP SECTION LW 54, 55, 56, 57, 58, 59, 31	DATE 5-22-58
TRACED	SECTOR II AREA F	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX TENN C-1366
APPROVED		

1" = 100'
AX TENN C-1366

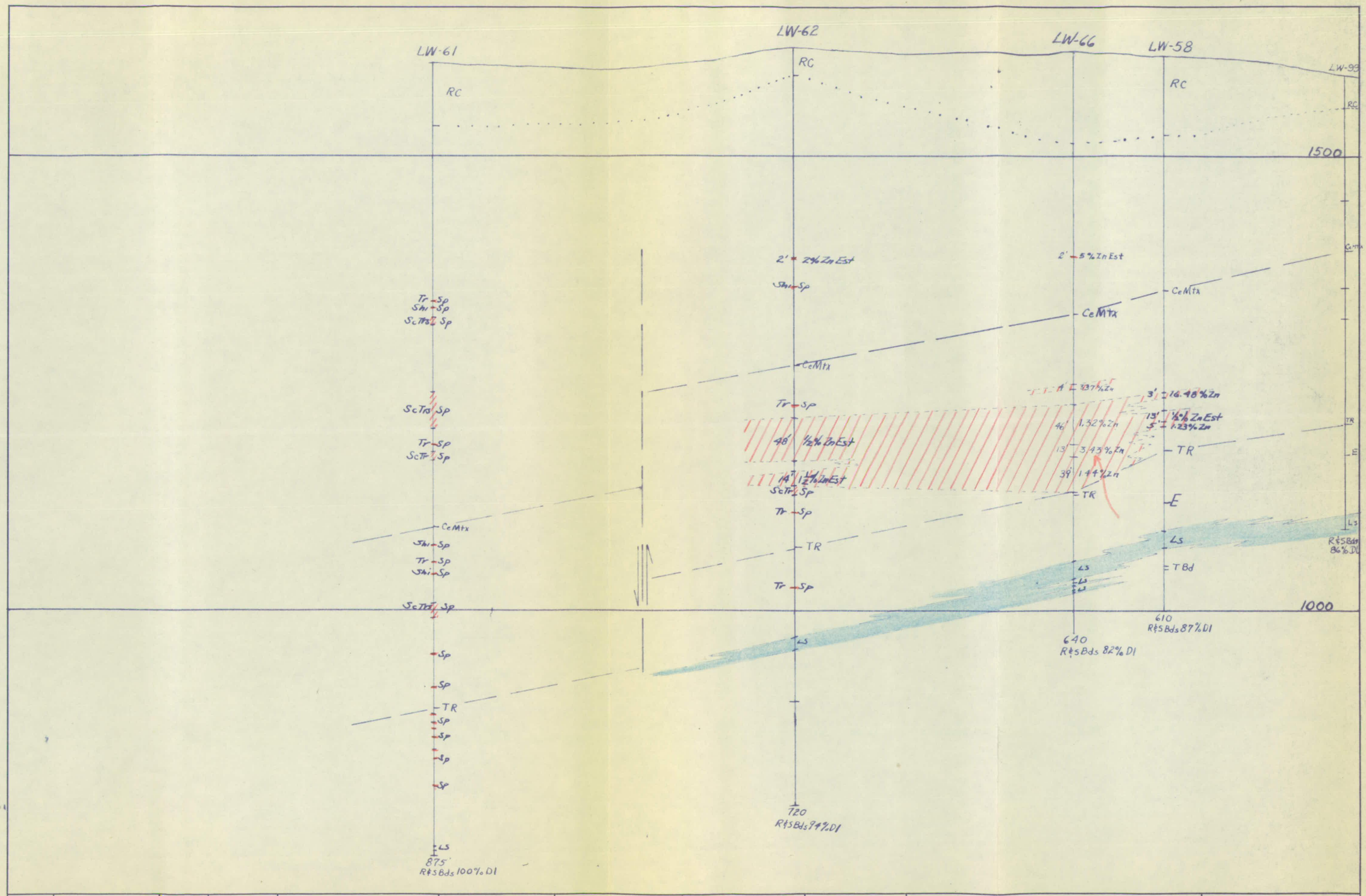


DRAWN EWR & WTH	DIP SECTION LW 96, 63, 60, 62, 98, 97, 28, 29, 95	DATE 7-15-58
TRACED WTH		SCALE 1" = 100'
CHECKED	SECTOR II AREA F	AX TENN C-1377
APPROVED	COPPER RIDGE BELT	

AX-TENN C-1377



DRAWN EWR	DIP SECTION LW-61,64	DATE 8-11-58
TRACED	SECTOR II AREA-F	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX-TENN-C-1387
APPROVED		



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							CHECKED	COPPER RIDGE BELT	AX TENN B-1390
							APPROVED		

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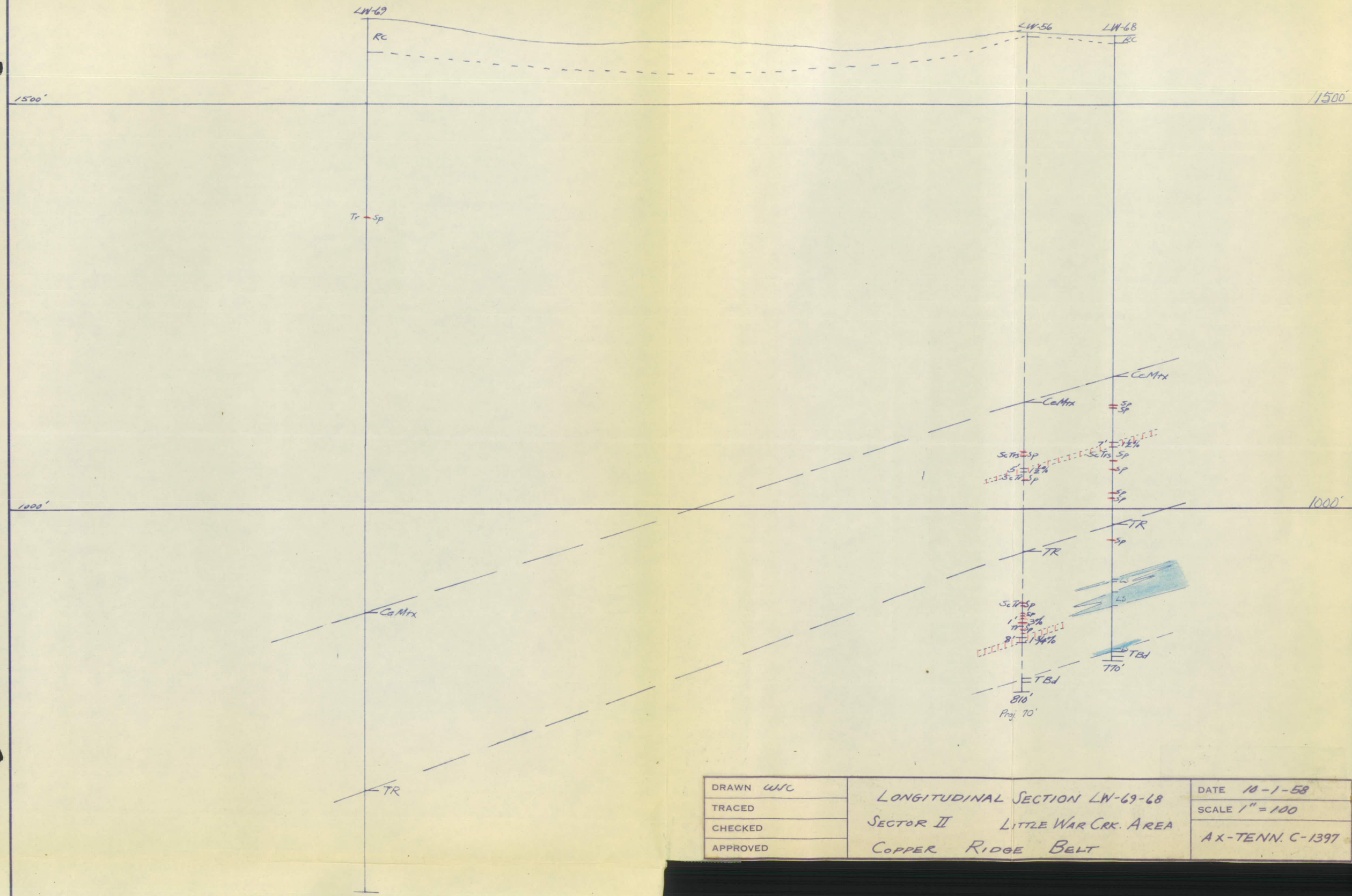

DRAWN WJC	LONGITUDINAL SECTION LW-69-68	DATE 10-1-58
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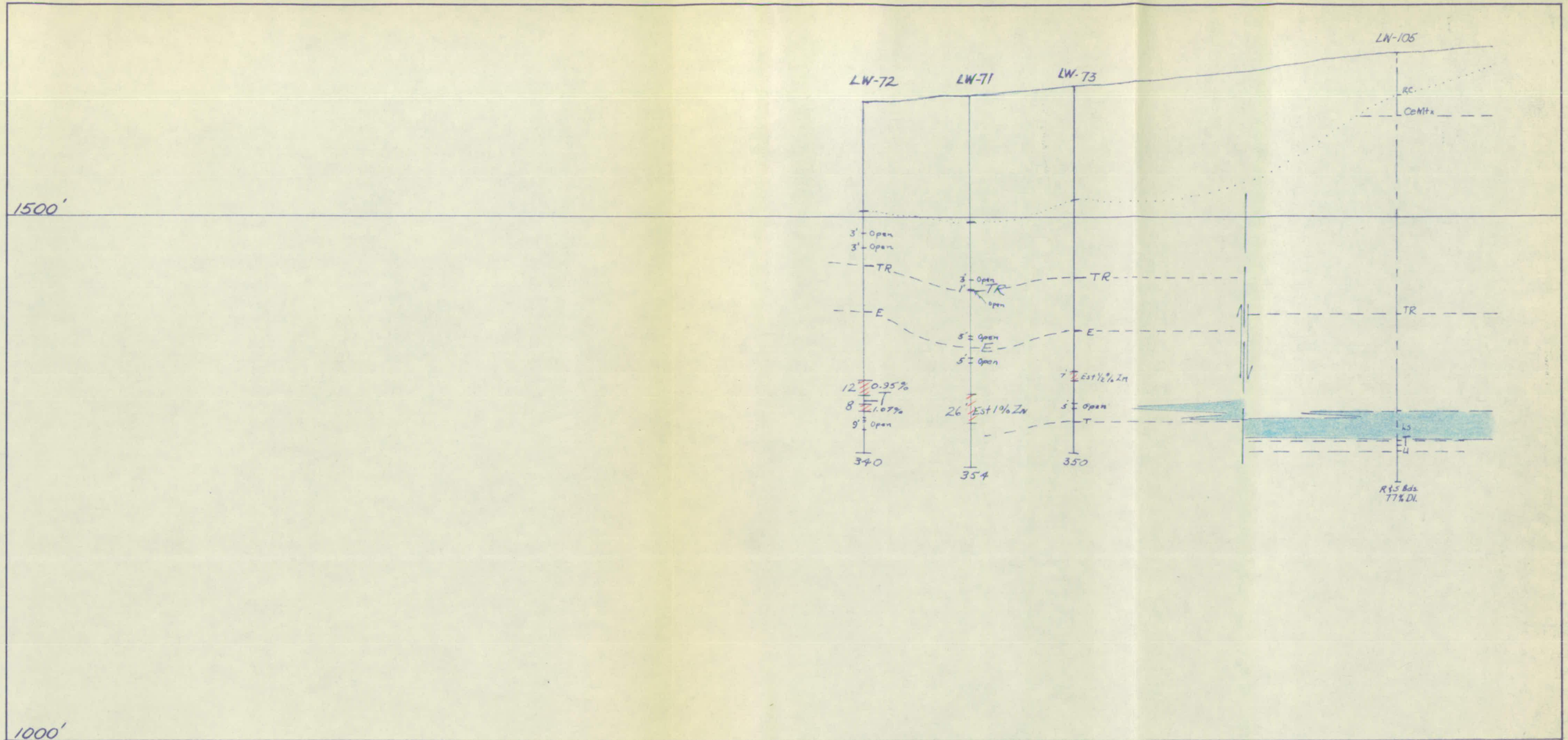
CHECKED	COPPER RIDGE BELT	AX-TENN. C-1397
APPROVED		



LW-71, 72, 73

SERIAL NUMBER		DATE ISSUED		REFERENCE DRAWINGS	REVISIONS	THE NEW JERSEY ZINC COMPANY	DRAWN WJC	LONGITUDINAL SECTION	DATE 11-24-58
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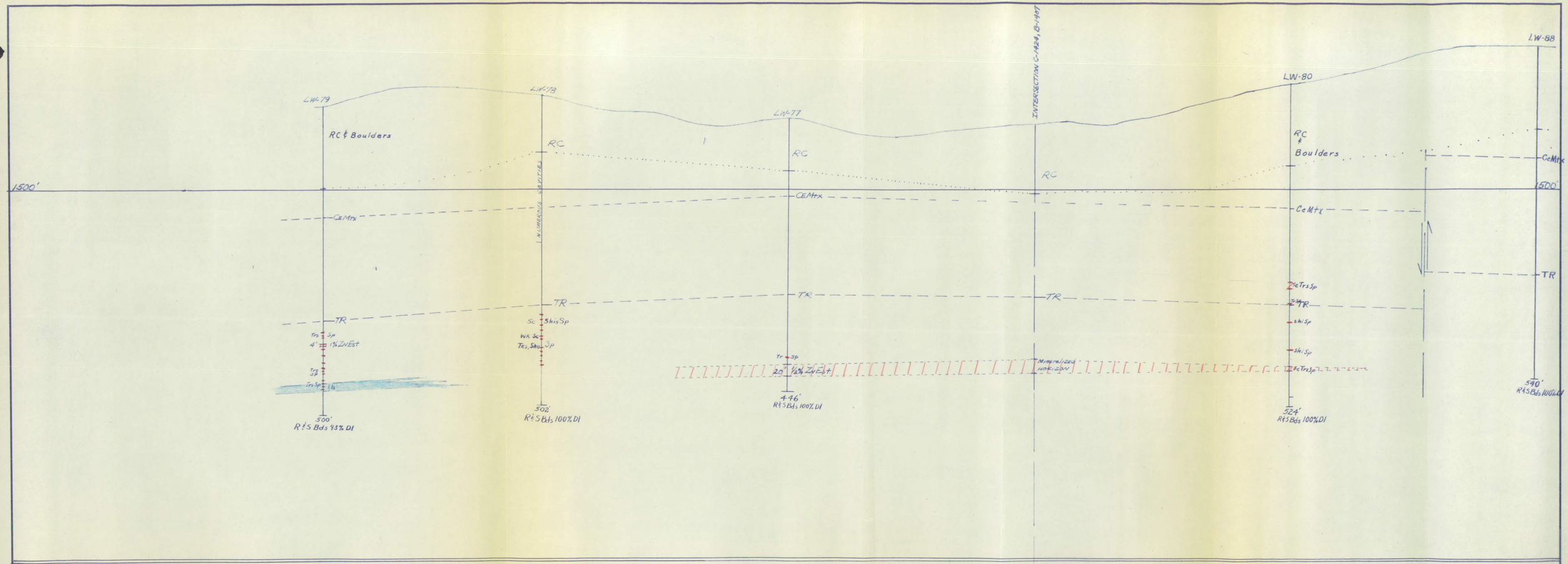
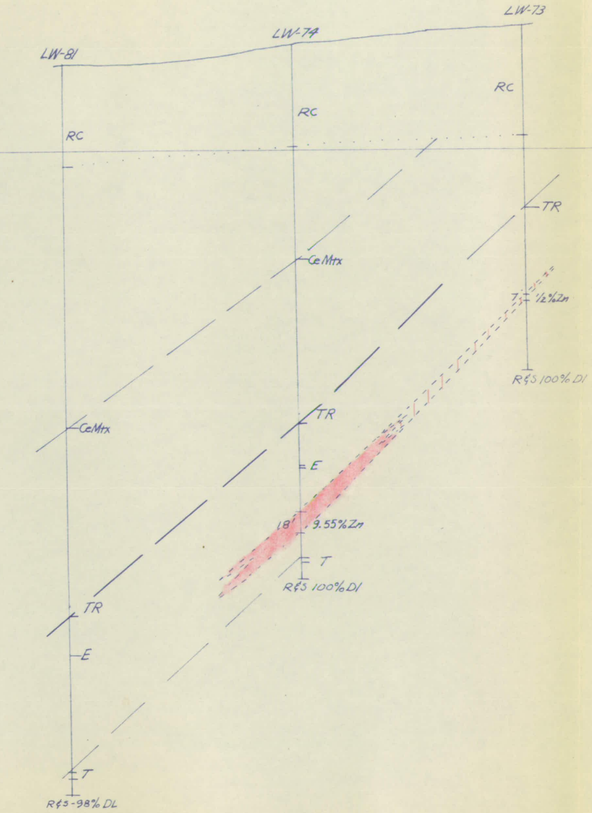
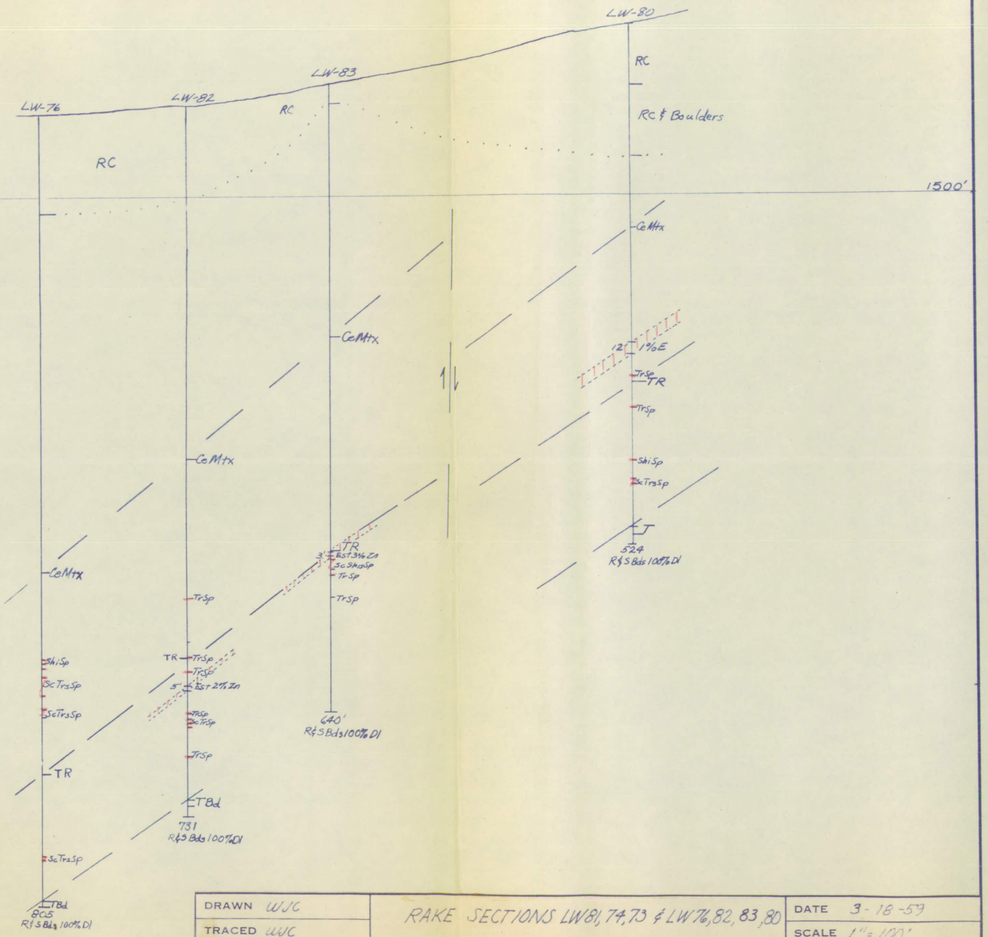
							CHECKED	COPPER RIDGE BELT	AX-TENN B-1415
							APPROVED		

X5453B 1M 11-54

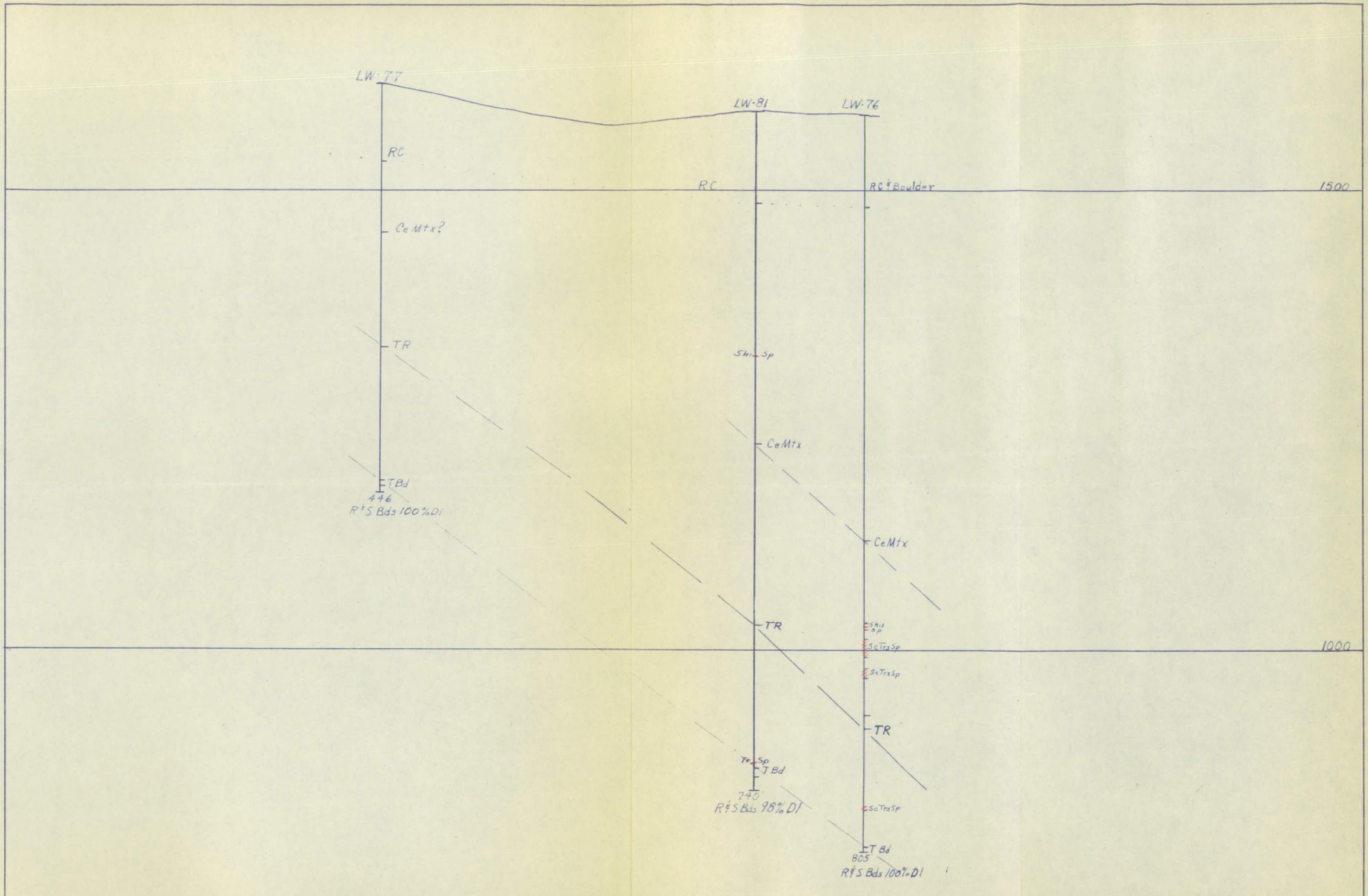


DRAWN WJC	LONGITUDINAL SECTION LW-79, 78, 77 etc.	DATE 2-13-59
TRACED WJC	SECTOR II LITTLE WAR CREEK	SCALE 1" = 100
CHECKED	COPPER RIDGE BELT	AX-TENN C-1424
APPROVED		





DRAWN WJC	RAKE SECTIONS LW81, 74, 73 & LW76, 82, 83, 80	DATE 3-18-59
TRACED WJC	SECTOR II LITTLE WAR CREEK AREA	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX-TENN C-1431
APPROVED		



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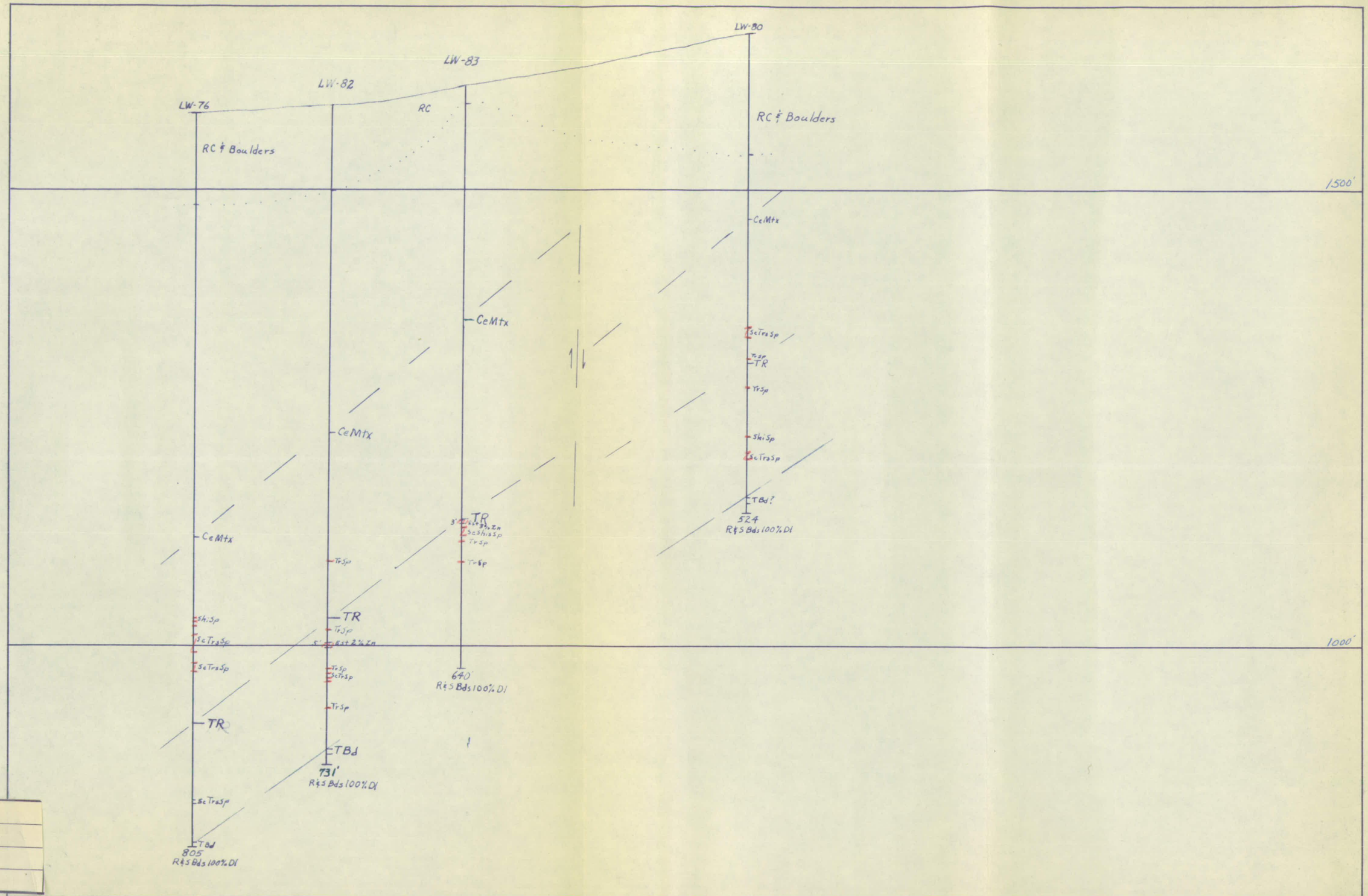
							CHECKED	Copper Ridge Belt	AX-TennB-1433
							APPROVED		

X5453B 1M 11-54



DRAWN	WJC
TRACED	WJC
CHECKED	
APPROVED	

SERIAL NUMBER		DATE ISSUED		REFERENCE DRAWINGS	REVISIONS	THE NEW JERSEY ZINC COMPANY	DRAWN EWR	Rake Section LW-76,82,83,80	DATE 3/16/59
						Jefferson City, Tenn.	TRACED	Sector II Area F	SCALE 1" = 100'
							CHECKED	Copper Ridge Belt	AX-TennB-1434
							APPROVED		

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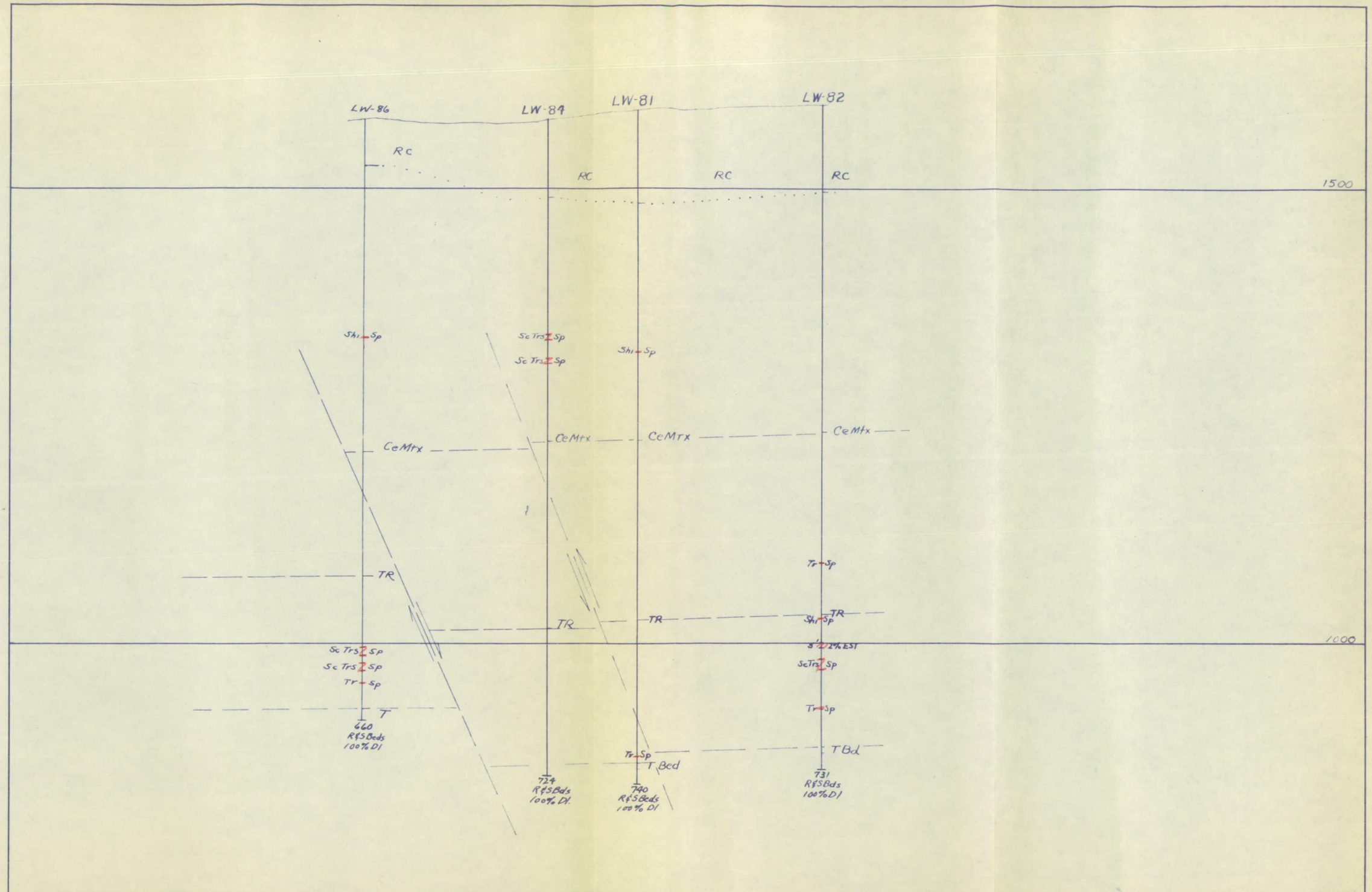
X5453B 1M 11-54



SERIAL NUMBER		DATE ISSUED		REFERENCE DRAWINGS	REVISIONS	THE NEW JERSEY ZINC COMPANY	DRAWN EWR, WJC	LONGITUDINAL SECTION LW84,81,82	DATE 4-2-59
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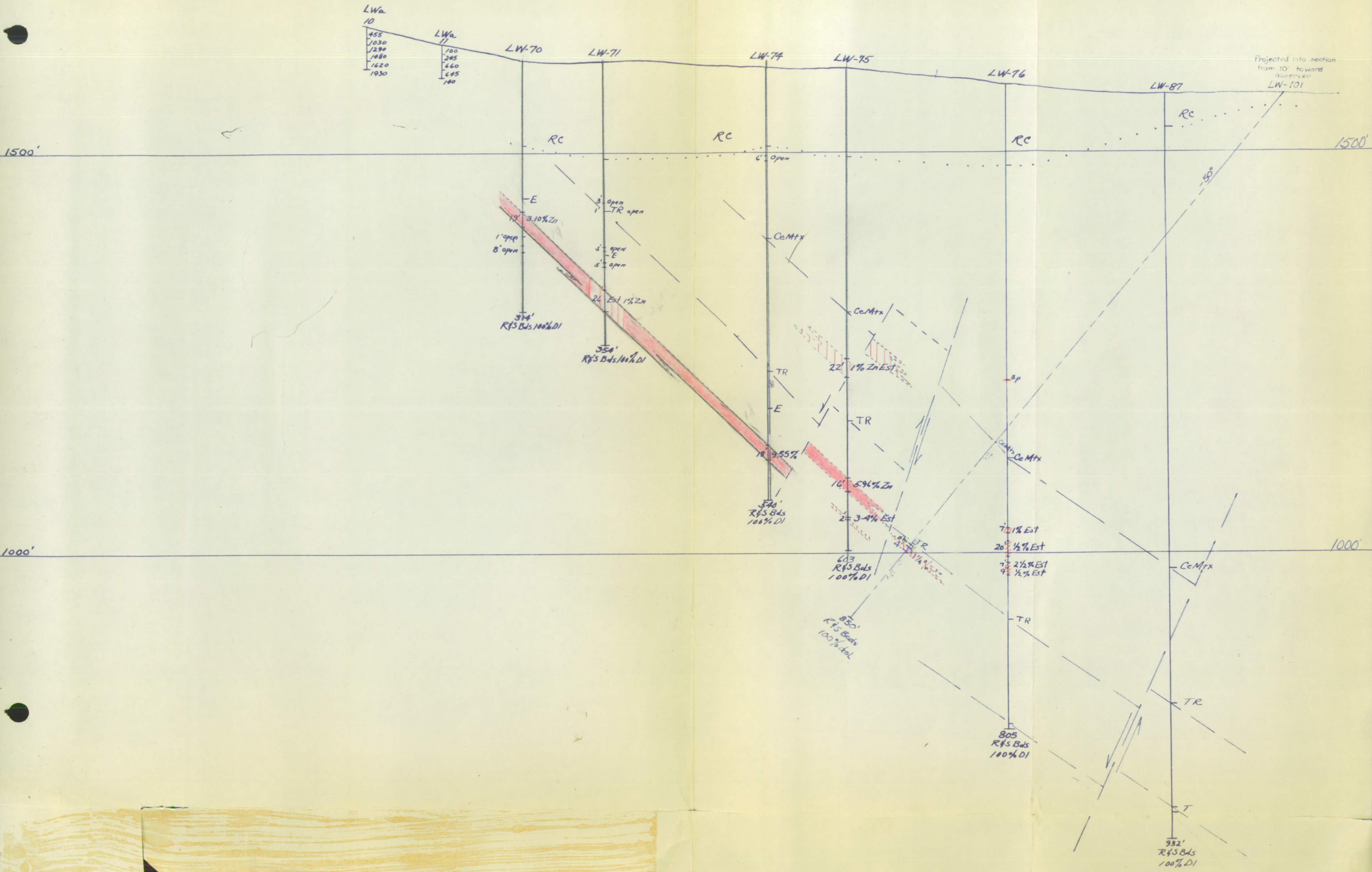
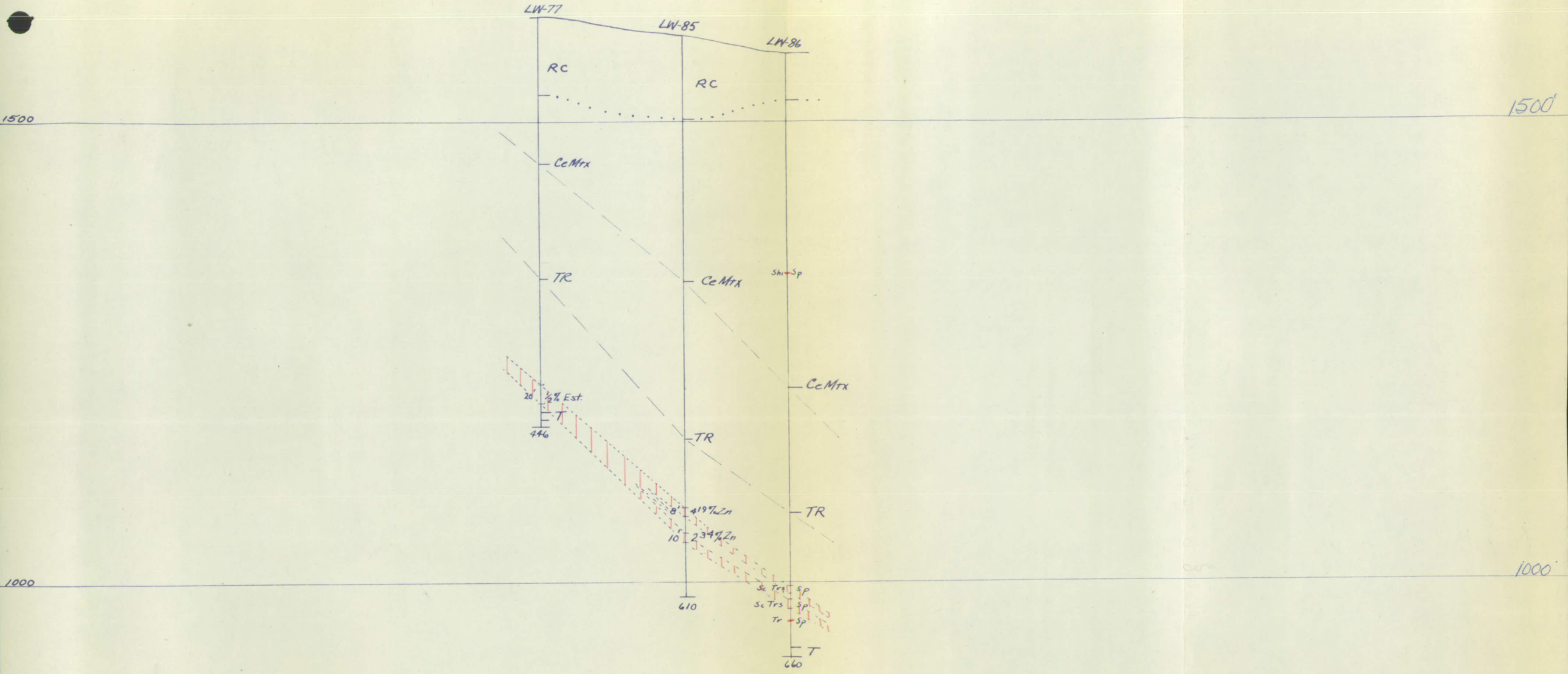
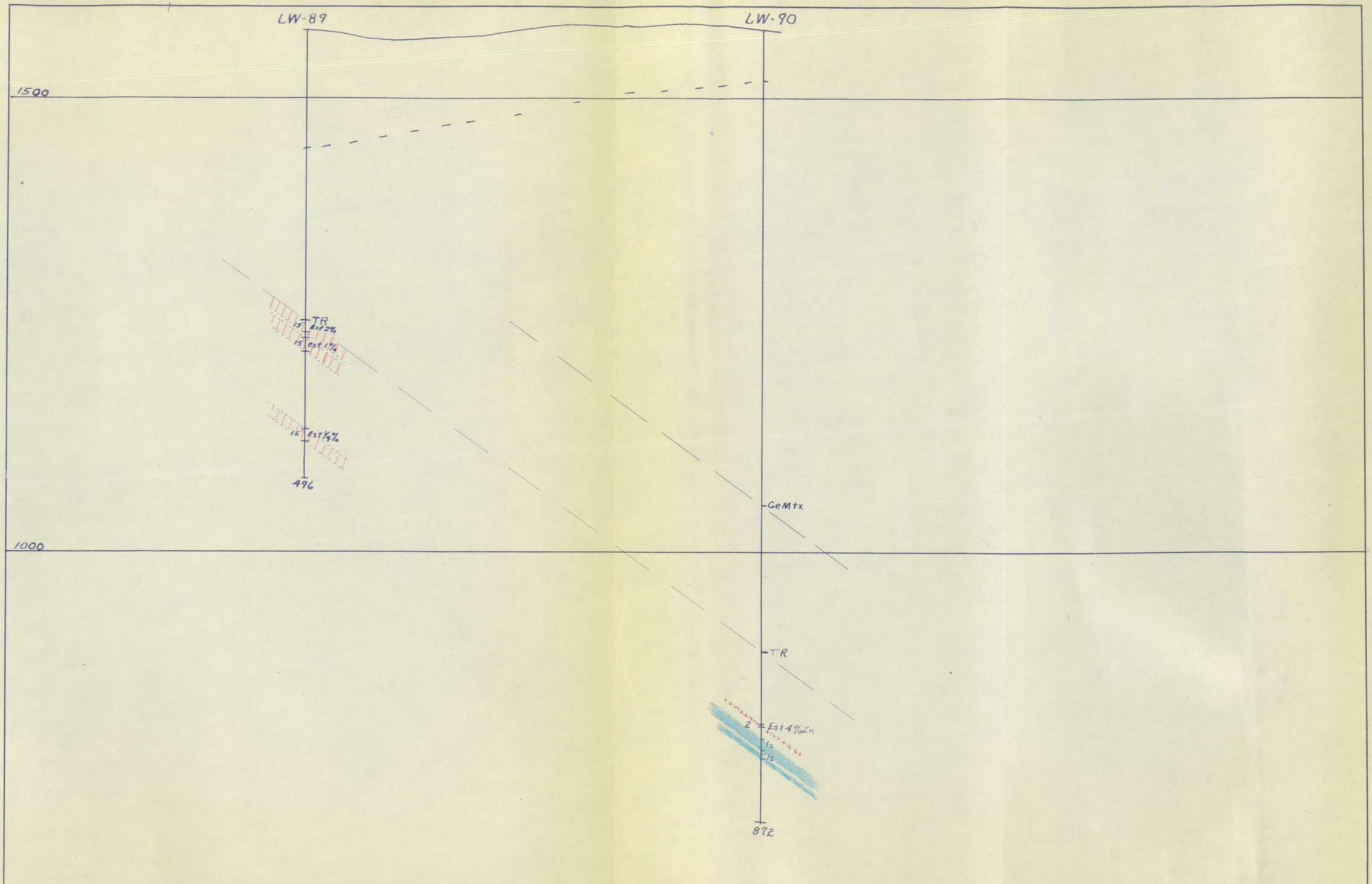
							CHECKED	COPPER RIDGE BELT	AX TENN B-1435
							APPROVED		

X5453B 1M 11-54

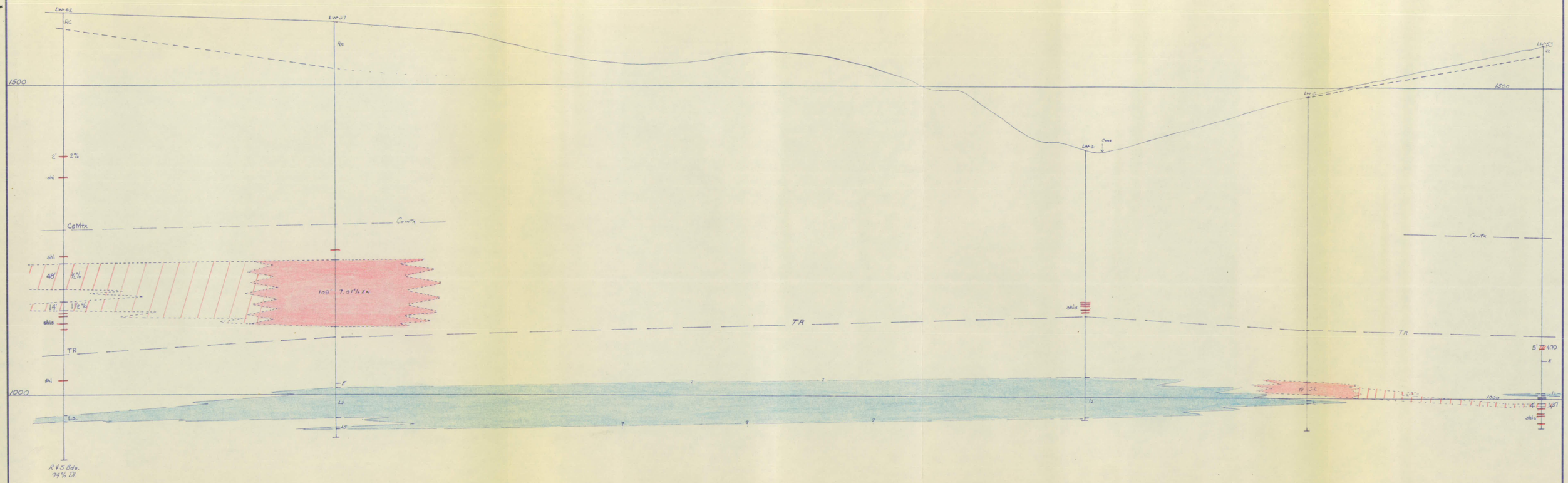

LWa 10
455
1030
1290
1480
1620
1930
LWa 11
100
245
660
645
140
LW-70
LW-71
LW-74
LW-75
LW-76
LW-87
Projected into section from 10' toward observer
LW-101
1500'
1000'
RC
RC
RC
RC
6' open
3' open
1' TR open
E
19' 3.10% Zn
1' open
8' open
5' open
E
5' open
CeMtx
26' Est 1% Zn
314'
R&S Bds 100% DI
354'
R&S Bds 100% DI
CeMtx
22' 1% Zn Est
TR
E
TR
sp
18' 9.55%
16' 5.96% Zn
2' 3.4% Est
E
TR
1' 1% Est
20' ½% Est
7' 2½% Est
9' ½% Est
CeMtx
CeMtx
TR
TR
T
644'
R&S Bds
100% DI
603
R&S Bds
100% DI
850'
R&S Bds
100% dol
805
R&S Bds
100% DI
932'
R&S Bds
100% DI
50°



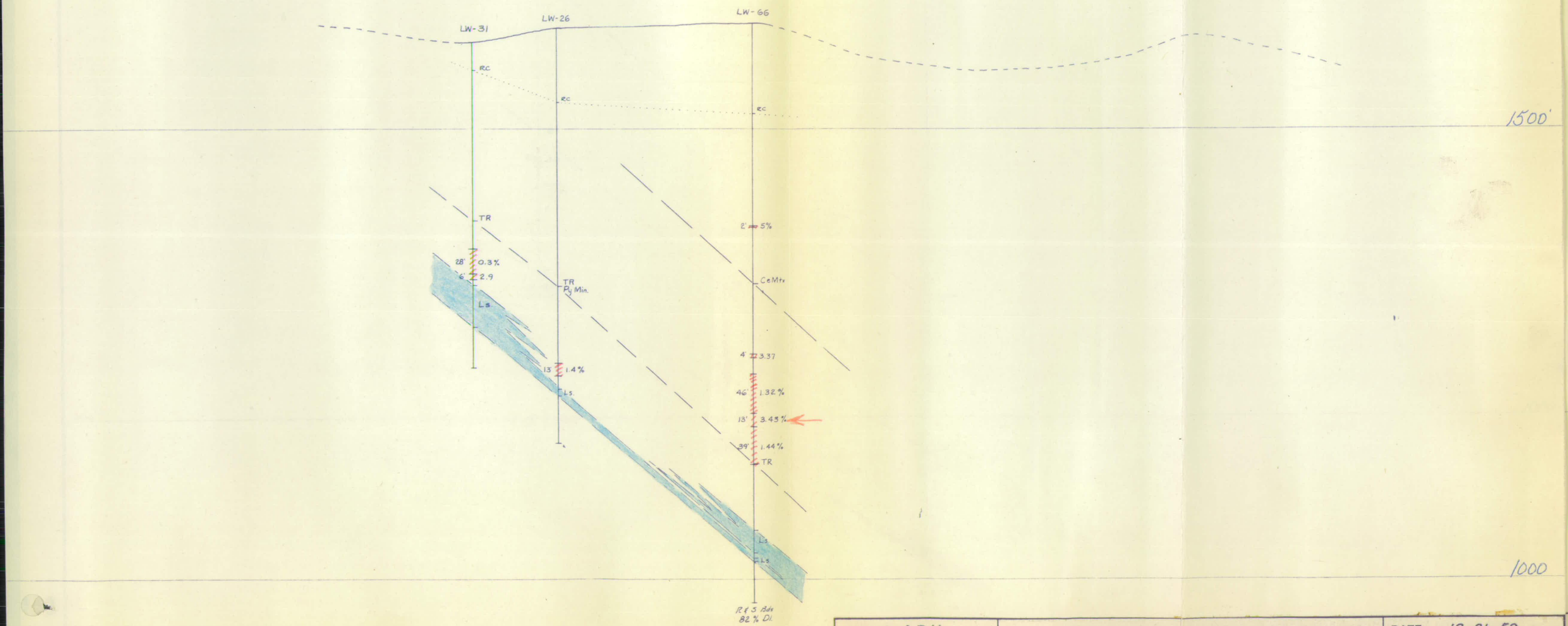
DRAWN WJC	DIP SECTION LW-77, 85, 86	DATE 5-13-59
TRACED	SECTOR II LITTLE WAR CREEK	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX-TENN C-1450
APPROVED		



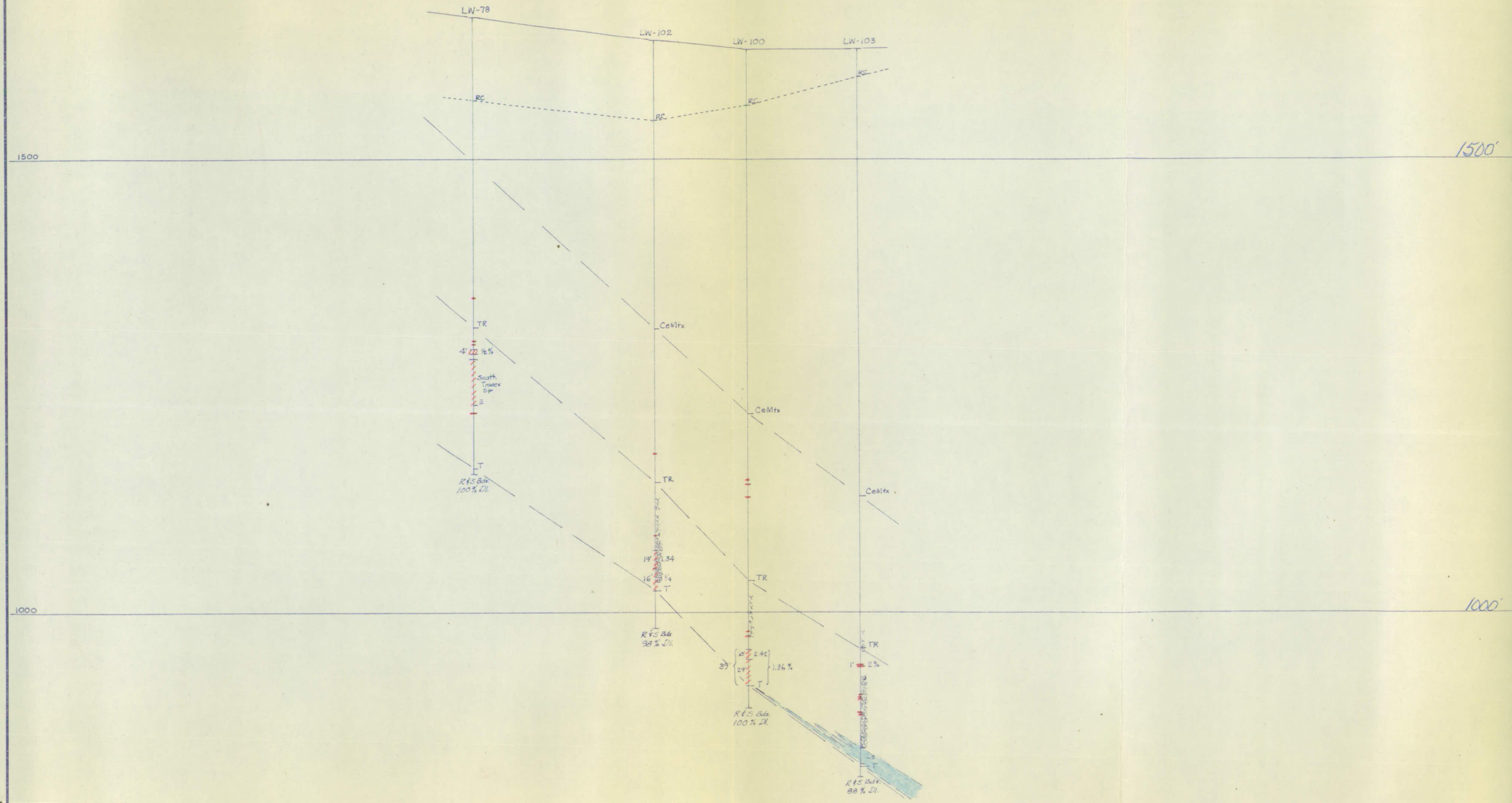
SERIAL NUMBER		DATE ISSUED		REFERENCE DRAWINGS	REVISIONS	THE NEW JERSEY ZINC COMPANY	DRAWN EWR	Dip Section LW-89, 90	DATE 9/25/59
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED. THIS DRAWING MUST BE RETURNED TO THE NEW JERSEY ZINC COMPANY.					6-24-60 FEF	Jefferson City, Tennessee	TRACED	Sector II Little War Crk	SCALE 1" = 100'
							CHECKED	Copper Ridge Belt	AX-Tenn B-1466
							APPROVED		



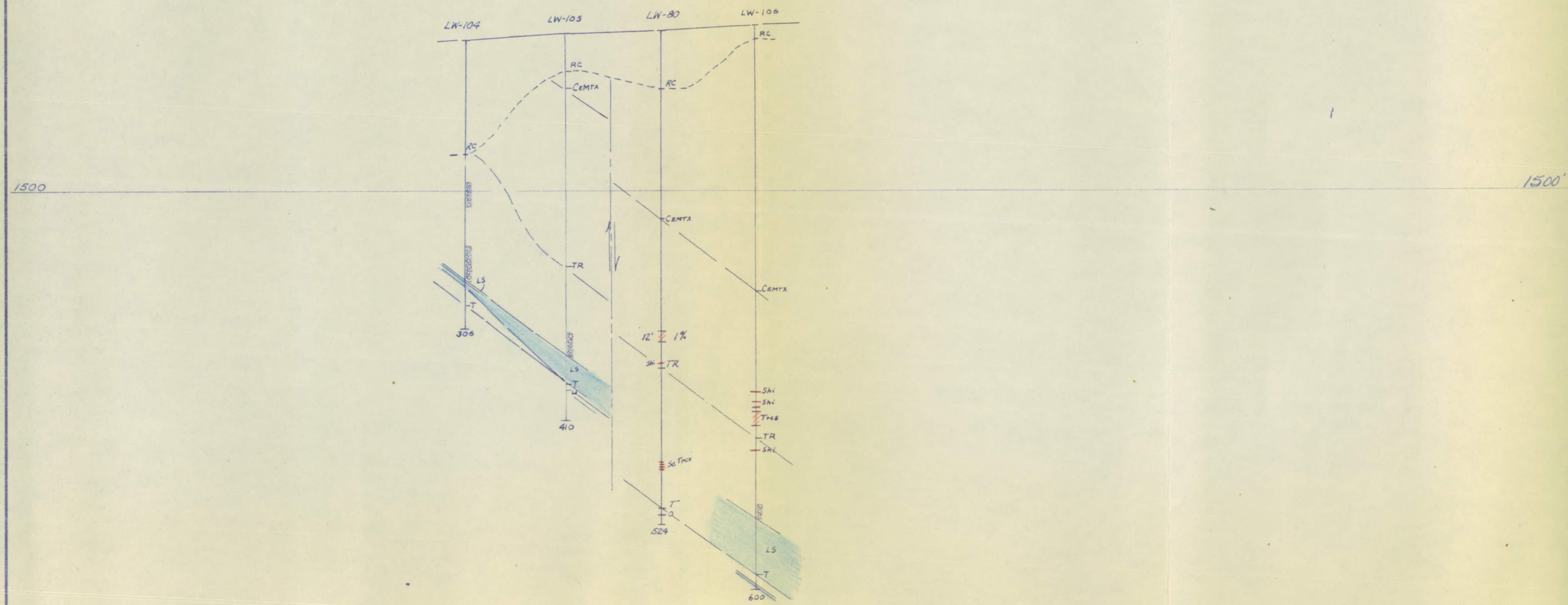
DRAWN WTH	LONGITUDINAL SECTION LW-62, 57, 4, 13, 53	DATE 12-21-59
TRACED WTH	SECTOR II LITTLE WAR CRK AREA	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX-TENN C-1479
APPROVED		



DRAWN ADH	DIP SECTION LW-31, 26, 66	DATE 12-21-59
TRACED FTF	SECTOR II LITTLE WAR CRK.	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX-TENN C-1480
APPROVED		



DRAWN F.T.F.	DIP SECTION LW-78, 102, 100, 103	DATE 6-24-60
TRACED	SECTOR II LITTLE WAR CRK.	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX-TENN C-1498
APPROVED		



DRAWN F.T.F.	DIP SECTION LW-80, 104, 105, 106	DATE 5-11-60
TRACED	SECTOR II LITTLE WAR CREEK	SCALE 1" = 100'
CHECKED	COPPER RIDGE BELT	AX-TENN C-1657
APPROVED		

LEGEND ---- TENNESSEE DIAMOND DRILL LOGS

A ----- Grade "A" -- 1-5% Zn, Pb
Abu --- Abundant
Ae ---- Augen
Alt --- Altered
Ang --- Angle, Angular
App --- Apparent
Apr --- Approaching
Argil - Argillaceous
Att --- Attitude
Av ---- Average

B ----- Grade "B" 5-10% Zn, Pb
Bd ---- Bed, Bedding, Bedded
Bear -- Bearing
Bkn --- Broken
Bl ---- Black
Blu --- Blue
Bn ---- Band-ed
Bot --- Bottom
Br ---- Breccia
Brm --- Mosaic Breccia
Brn --- Brown
Bro --- Rosette Breccia
Brr --- Rubble Breccia
Bt ---- Barite
Btwn -- Between
Bu ---- Buff
Ble --- Bleached-ing

C ----- Grade "C" -- 10% & Up Zn, Pb
Є ----- Cambrian
Єcr --- Copper Ridge Dolomite
Єm ---- Maryville Ls
Єn ---- Nolichucky Shale
Єnmdl - Maynardville Dolomite
Єnmls - Maynardville Ls
Єr ---- Rome Shale
Єrg --- Rogersville Shale
Єrgc -- Craig Ls Member.
Єrt --- Rutledge Ls
Єs ---- Shady Dolomite
Ca ---- Calcite

Ce ---- Chert
Cem --- Cemented
Cer --- Cerussite
Calc -- Calcareous
Cg ---- Conglomerate
Ch ---- Chalcopyrite
Chalced Chalcedony
Cm ---- Calamine
Comp -- Composite
Conc -- Concretion
Concr - Concentrated
Condn - Condition
Cons -- Considerable-y
Cont -- Controted
Cr ---- Cream-y
Crs --- Coarse
Crn --- Crushed
Crypt - Cryptozoon
Ct ---- Contact
Curv -- Curved

D & Dk- Dark-Prefix to color
Decalc- Decalcified
Dis --- Disseminated
Disc -- Discontinuous
Displ - Displacement
Dist -- Distance
Dl-z -- Dolomite-zed
Dlic -- Dolomitic
Dlztion - Dolomitization
Dn ---- Dense
Dol --- Dolomite (Mineral)

Ed ---- Edgewise
Eff --- Effervescence
Ellip - Ellipsoidal

Fa-ng - Fault-ing
Fi ---- Fine
Fl ---- Fluorite
Fm ---- Formation
Fn ---- Faint
Fos --- Fossil-iferous
Fr-d-ng - Fracture-ed-ing
Frag -- Fragment

Fret --- Fretwork
Fuz ---- Fuzzy Metamorphism
FW ----- Footwall

G ------ Ground
Ga ----- Galena
Gd ----- Gradational
Gg ----- Gouge
Gm ----- Groundmass
Gos ----- Gossan
Gran ---- Granular, Granule
Grn, Grnsh - Green-ish
Gy ----- Grey

Horiz --- Horizon
He ----- Hematite
Hily ---- Highly
Hvy ----- Heavy
HW ----- Hanging Wall

I & Inter - Interbedded
Inclin -- Inclination
Incip --- Incipient
Irreg --- Irregular

K ------ Kaolin
KKnFa --- Koppick Knob Fault

L ------ Light
Le ----- Leached
Lg-er --- Large-r
Lim-ic -- Limonite-ic
Lo ----- Local-ly
Ls ----- Limestone

M ------ Medium
Mal ---- Malachite
Mash --- Mashed
Mass ---- Massive
Md ----- Moderate
MF ----- Mud Flakes
Min ---- Mineralized (0-1% Zn, Pb)
Mkr ---- Marker
Mot ---- Mottled

Mt ---- Metamorphism, Metamorphosed
Mtx --- Matrix
Mylon - Mylonite

Nil --- None
Nod --- Nodule-ar
Nu ---- Numerous

Oc ---- Occasional
Oo ---- Oolite-ic
Or ---- Orange
Oxid -- Oxidized-ation

Pk ---- Pink
P ----- Pseudo
Pb, Peb- Pebble
Piso -- Pisolite-ic
Por --- Porphyritic
PSg --- Pseudo Sand Grain
Pt ---- Parting
Py-ic - Pyrite-ic

Q ----- Quartz
Qt, Qtzt - Quartzite

Rd ---- Red
R-y --- Ribbon-y
Ra ---- Rare
RC ---- Red Clay
Reg --- Regular
Rem --- Remnant
Repl -- Replacement
Rk ---- Rock
Rnd --- Round

S ----- Siliceous
Sach -- Saccharodial
San --- Sandy
Sc ---- Scattered
Sch --- Schard
Sec --- Secondary
Sed --- Sediment-ary
Sg ---- Sand Grain
Sh-y -- Shale-y
Shat-ng - Shattered-ing
She --- Shear
Shi --- Shins

Si ---- Silica
Sk ---- Speckled
Sl ---- Slight
Sm ---- Smithsonite
Sml --- Small
Sp ---- Sphalerite
Ss ---- Sandstone
St ---- Strong
Stn --- Stain
Stp --- Steep
Strat - Straticulate
Sty-ic- Stylolite-ic
Sug --- Suggestive
Sul --- Sulphide

TB ---- Thin-bedded
Tk-ns - Thick-ness
Tn ---- Thin
Tp ---- Top
Tr ---- Trace
Trans - Transitional
Text -- Texture
TGS -- Thin Green shale

Vn ---- Vein
Var --- Varied-ious-iable
Vnl --- Veinlet
Vug --- Vuggy, Vug
Vy ---- Very

Wd ---- Width, Wide
WB ---- Well-bedded
We ---- Weathered
Wh ---- White
Wk ---- Weak

Xl ---- Crystal
Xln --- Crystalline

Yel --- Yellow

Zn ---- Zinc
Zo ---- Zone

Oc ---- Chepultepec
Ol ---- Lenoir
Olv --- Longview
Ok ---- Kingsport
Om ---- Mosheim
Oma --- Mascot

LOCATION Copper Ridge Belt
Sector II
Area F
PROPERTY M.C. Tunmire

THE NEW JERSEY ZINC CO.

SECT AX-TENN C-1366 X

HOLE NO. LW-54

ELEVATION 1578.08

STARTED 4-8-58 BOTTOMED 4-24-58 LOG BY EWR-WJC COORDS. 745,738.05 N; 799,832.69 E

SHED NO. C- DISCARDED None BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO.	FROM	TO
0	22	22	-			RC	Bx-Ax 40				
22	713	691	621	Oma		Dl	Wk Frg 36, 38, 40 Ce 38 St Frg, Fa? 54 Lt Brwn Mot Dl 57-62 DK Dlw/AEs 70-82 CeNd Zo 97-106 Wh AE Zo 115-120 Ox 126, 128 Grn Sh 137 Ce Peb Cgl 146-147 Ra Sgs 153 Grn Sh 148 Ce Nod Zo 166-170 Ce 192 Sed Brw/Pebs 192-193 Ce Mtx Sgs 193 Sc Sgs 202 Ce Nod Zo 221-225 Red Mot 227-255 Bnd Sgs over Ce 252 Crs Sgs in Grn Sh 258 Abu Sc Sgs, Ce Chips 263 45° Fa 267 Ra Sgs 268 Ra Crs Sgs 273 Sed Br 285 St Red Mot 304-309 Abu Fi Sgs 314 Sgs 324 Bd Wh Ce 326-331 Sc-Bnd Sgs in Strat 345-346 6" Wh Ce 351, 357 Bnd Fi Sgs over 6" Wh Ce 380 Abu Fi Sgs 383 V Abu Sc-Bnd Sgs → Ce Mtx 390 Abu Crs Sgs 409 App Dip 40° @ 410 Abu Sgs, Peb Cgl 417 Sc Sgs 423 Sgs 436 DK Mot Dlw/ Nods, Frags 436-447 V Abu Sc Sgs w/Ce Mtx 447-450 Sh 457 Ce 458 Sc Sgs, Ce Sh 460 V Abu Crs Sgs Ce Frags 461-462 Crs Sgs in Xln Dl → Ce Mtx 470-472 Hv Ce 472-474 Sgs, Sh 478 Sgs, Ce Frags 480 Ce Br 507 Ce 530 Fi Grn Lt Dlw/Ce Nods 530-536 Sc Sgs over Ce 536-537 Sc-Bnd Sgs w/Ce, Ce Pebs 542-544 Ce Peb Cgl 548 1" Grn Sh 554 Sc-Bnd Sgs over Ce 560 561 Abu Sc Sgs 566-567 Sgs, Ce Pebs 571 Fi Grn Lt Dlw/ Ce Nds 571-583 Br Zo 590-596 (Bd Pl Fa?) Sgs over Rexo, Ce Frags 602 Fi Dlw/Ce Nds 595-600 Ce Nds in Fi Strat 646-650 Ry Dl 661-662 V St Ce Mtx Sgs 666-667 Ce Mtx → Sc-Bnd Sgs 676-677 DK Ry Dlw/AEs 690-695 Bnd Sgs in Strat 704 Sc-Bnd Sgs 706-708 Ce 709 Ce Peb Cgl 710-711 6" Wh. Ce 712				
					Ce Mtx 666						
713	845	132	123	OK		Dl	Ce 719 Sgs 744 Ra Sgs, Ce Peb Cgl 752 Sgs, Grn Sh 758 Ce Nd Zo 764-773 Ra Sgs 768 Sgs, Ce Frags 772 Grn Sh 780 Brun Oo. Ce 791 Ce Nds 791-796 Bnd Sgs 794 Sgs, Grn Sh 814 Sgs	Tr Sp 753, 801, 804, 809 St Shi Sp 825 Tr Sp 835, 850			
					TR						
845	929	84	79		845 "A" Sgs	Dl	852-853 Bu Dl ("B" Mkr) 859 Sed Br 865-866				
					853						
					B Mkr						
					859		Fi Grn Dlw/Ce Nds E Mkr				
					E						
929	963	34	30		897	Ls					
963	967	4	4		TBd. 965-967	Dl	Fi Xln → Fi Grn Dl				
967	993	26	26			Ls					
993	999	6	6			Dl	Fi Dlw/Ce 998-999				
999	1006	7	7			Dl					

Bottom 1006 R & S Beds 72% Dolomite

SECT AX-TENN C-1366.X

THE NEW JERSEY ZINC CO.

LOCATION Copper Ridge Belt
Sector II
Area-F

PROPERTY M.C. Tunmire

STARTED 4/25/58 BOTTOMED 5/16/58 LOG BY EWR-WJC
SHED NO. C- DISCARDED None

HOLE NO. LW-55
ELEVATION 1560.76
COORDS. 745,907.05N; 799,726.45E
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		
0	11	11	–			RC	Bx-Ax 20 Open 25-26, 54-55, 104-107, 121-122, 124-126, 128-131 Ce 36 CePebCgl 53-55 St Ox 53-54 CeMtx Sgs 56 St Br 59-62 Fa 62 Bl Ce 66, 67 Red Mot Dl 87-94 Frs w/Dol 97-99 Grn Sh 100 Red Mot Dl 100-110 Abu Fi Sgs in Dk Shy Dl 140 Oo Ce 158 Abu Sc-Bnd Sgs in Red Strat 172 Fa 180 Ra Sc Sgs over Grn Sh 183 Hi Ang Fa w/Br 215 Hvy Whi Ce 209-210 Grn Sh 234 Ce 235-237 Abu Sc Sgs 243 Abu Sgs 252 Sc Pebs in Strat 252-258 Ce Nods 257 Ce Nd 265 Strat 265-268 Abu Sc-Bnd Sgs 268 Thin Bn Sgs 272 2' Sc Sgs above Gr Sh 279-281 Sc Sgs → CeMtx 286-288 Ce 298 Ry Dike w/Ra Ce 304-313 Abu Sc-Bnd Sgs above Ce 313-315 Ce Nds 324-327 Abu Crs Sgs 327-329 Ce Nds 329-331 Abu Sc-Bnd Sgs 334-336 6" Whi Ce 336 Sc Sgs 350 1' Ry Dike 371-372 Ra Sgs 376 Whi Ce 393-395 Sgs in Fi Strat 405-406 Sc-Bnd Sgs w/Ce 416-418 Whi Ce 425-427 Abu Sc Sgs 431 Sc Sgs 438-440 Abu Sc-Bnd Sgs w/Ce Pebs & Ce Nds 449-451 Sc Sgs 481 Sgs w/Peb Cgl 484-485						
					CeMtx		(60 Sgs) Abu Sgs → CeMtx 543-544		10350	794	798	4'	3.02
544	722	178	168	OK	544	Dl	Sgs 560 Abu Fi Sgs 578-579 Ce Br 580-582 Sc-Bnd Sgs w/Ce 582-585 Bu Dl w/Ce Nds 602-614 Sgs, Oo Ce 613-614 Ce Br 624 Ce Nds 625 Sgs, Gangue Dl 656 Ce Br 668-669 Bnd Sgs 673 App Dip 40° @ 667 Sc Sgs 692 Whi	Sc Trs 662-665 Tr Py in gangue 712	51	798	802	4'	1.49
									52	802	805	3	0.80
					TR								
					722		Ce 707-710 Sgs 723		53	818	823	5'	1.10
722	794	72	66	OK	"A"?	Dl	Sed Br 723-725		54	823	828	5'	2.36
					737		V Crs Sgs 737		55	828	834	6'	1.78
					B Mkr		Sed Br 742-744 Intense Mot Dl 744-755						
					743								
					E		Fi Bu Dl 775-779 E?		Weighted Averages				
794	805	11	11		779	Min	Mineralized	Py 781, 782 Tr Sp 787, 791 Sh Sp 838		794	805	11'	1.86% Zn
805	818	13	12			Dl				818	834	16'	1.75% Zn
818	834	16	14			Min	Mineralized						
834	841	7	7		J Sgs	Dl	Crs Sed Br						
841	846	5	5		846	Ls	J Sgs 845-846						
846	848	2	2			Dl	Crs Sed Br						
848	852	6	6			Ls							
852	854	2	2			Dl	Crs Dl Sed Br						
854	860	6	6			Ls							
860	866	6	5			Dl							
866	868	2	2		T Bd	Ls							
868	870	2	2		870	Dl	Med-Crs Xln						
870	890	20	18			Dl, Ce	Fi Grn Dl, Ce. Ra Sgs 890.						

Bottom 890 R & S Beds 89% Dolomite

THE NEW JERSEY ZINC CO.

SECT AX-TENN C-1366 X C-1397

HOLE NO. LW-56

LOCATION Copper Ridge Belt
Sector II
Area F

PROPERTY M.C. Tunmire

STARTED 5-17-58 BOTTOMED 5-30-58 LOG BY EWR-WJC

SHED NO. C- DISCARDED None

ELEVATION 1587.32

COORDS. 745,987.11N; 799,669.55E

BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		
0	3	3	–			RC	Nx-Bx 10 Bx-Ax 91						
3	452	449	423	Oma		Dl	CeMtx Sgs in Lt Strat 13-14 Open 28-35, 39-41, 45-48, 51-53, 56-57 Ox-48 Bnd Sgs 71 Sc-Bnd Sgs 97-98 Wh. Ce 110 Fi Rex In Dl 115-120 Strat 122-127 Wh. Ce 127-129 Wh. Ce 155-158 Sgs Sh 160 Aby Crs Sgs 165 Sc Sgs 172 Bnd-Sc Sgs @ Bs of 18" Brwn Strat, Over 1/2 Sh 186 Sc Sgs over 6" Ce 204 Abu Sgs 196-197 Bu Mot Dl w/Ce Frags 217-228 Abu Ce Mtx Sgs below Fi Dl 230-232 Abu Crs Sgs 245 V St Sc Sgs 250-252 Sc Sgs 306 Sc Sgs Below 6' Brwn Strat 326-327 6" Ce Cgl 331 18" Wh Ce 337-339 Sc Sgs, MF's 342 1' Wh. Ce 343-344 Sc Sgs 357-358 Wk Frg 366 Abu Sc Sgs, Dol Pebs (60 Sgs, Cgl) 393-394 Sgs, Qtzt Below Shy Dl 407-408 Sgs in Fi Strat 423 1" Sh 431 Dk Dl w/Shy Ptgs 437-446 Ce Mtx 452						
					60 Sgs, Cgl 394								
					Ce Mtx								
452	636	184	175	OK	452	Dl	V Abu Bnd Sgs w/Ce Pebs 461-462 Bnd Sgs in Med Gy Strat 488-490 Ce 494 V Abu Sc-Bnd Sgs w/Ce, Ce Frags 494-499 Ce 504 Wk Frg 508 Brn Oo Ce 527 Ce Nd Zo 523-527 Sc Crs Sgs 526-527 Ce Nd Zo 548-556 Ra Crs Sgs Below 3' Strat 561 Frg 556, 558	Sc Trs 515-518 Sc Shi SP 533-538 Sc Trs SP 538-547					
					TR								
636	699	63	61	OK	636 E	Dl	Fi Dl w/Ce Nds 665-671, 691-696 Rex In Dl 696-699						
					696								
699	723	24	23			Dl, Pi		Sc Trs Sp 700-708		699	723	24'	10% Pyrite Est
723	724	1	1			Dl Sed Br	Sed Br 708-743						
724	725	1	1		J Sgs	Min				724	725	1'	3% Zn Est
725	728	3	2		770	Ls							
728	793	65	60			Dl	Sed Br 728-743 Fi Dl w/Ce Nods 764-766 Sc Sgs 770 Ra Bnd Sgs 776 Ra Sgs 796	Sc Trs Sp 727-728 Trs Sp 732-733					
					T Bed								
793	810	17	17	Olv	793-796	Dl	Ce Nods 803-805 Sgs & Wh. Ce 808 Abu Crs Sgs in Ls 808-809 Silic Ls 809-810.	Tr Sp 729 Sc Trs Sp 732-736 Sc Trs Sp 737-742 8' 742-750 - 1 3/4% Zn Est.					
							Bottom 810 R & S Beds 98% Dl						

LOCATION LITTLE WAR CREEK

THE NEW JERSEY ZINC CO.

Sect. A1-Tenn C-1366X C-1479 Long.

HOLE NO. LW-57

ELEVATION 1600.21

PROPERTY M C TUNMORE

STARTED 5-31-58 BOTTOMED 6-9-58 LOG BY EWR

SHED NO. C-2 DISCARDED NIL

COORDS. 746,149.37N 799,553.29E

BRG. NIL INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	76	76				RC	Bx-AX90	
76	276	200	179	OMA			CRS Sgs 76 RaCrs Sgs, CePebs 79CeCg 189 VAbu CeMtx → Sc-Bnd	
							Sgs (210°) 104-106 Thin Bnd Sgs 112 CeMtx Sgs 116-118 Sc Sgs,	
					150 Sgs		Ce (Fi, Crs) 124-125 O. Ce (FA Bm O.) 127 Sgs O Bs of Fix In	
					178		134 DK Mot Bu DI 139-160 w/Lo Ry DI Sc-Bnd Sgs 160-161 Bnd Sgs	
					130 Sgs		166 (110) Mot DI, Lt, Bu w/ Aes 171-177 Sgs in Strat over 1" wh. Ce	
					198		179 Lt St Bl wh Strat 183-189 Sgs @ Bs of Strat 188-189 Sc-Sgs Ce	
					60 Sgs Cg1		198 O. Ce? 204 Bnd-Sgs Crs, Sc-209-210 Sc Sgs 212-213 Crs	
					258		Sgs, Ce Pebs 225 Crs Sgs, DI Pebs 257-258	
276	369				CeMtx	ore	Ce Mtx SS above Abu Sc Sgs 276-278 Ra Bnd Sgs	
369	374				327	Min	291 Abu Sgs in Br 303 Frng 310-315 Mylon 315 Sed Br	
374	384					ore	316-318 Ce Mtx SS 326-327 Abu-Sc-Bnd Sgs 335-337	
384	422	234	205			Min	Abu Sc-Bnd Sgs 364-366 Ra Sgs w/Crs Ce Pebs 369 Sc-Bnd	
422	433					Ore	Sgs 373-374, Ce 380 Abu Sc Sgs 416-417 Bnd Sgs 398	
433	478					Min	Sc Sgs & Ce Chips 464 Sc Sgs 472 Sgs 480, 484, 498	
478	505				TR			
505	510				510			
510	590	80	66			DI	Grn Sh 511-512, 518, 521, 525-526 Br 576-590 Grn	
							& Nl Sh 578 F. DI w/Cc above Sh 583-586	
590	639	49	47			LS	Sc Crs Sgs 631	
639	654	15	15			DI		
654	656	2	2			LS		
656	676	20	15		JSgs	DI	Sc Sgs 655-657 Ce Nod 20 660-665 Sc Sgs 662	
					658		C-676	
676 - Bottom								

ANALYSES SMPL. NO.	FROM	TO			
10356	369	374	3.38		5'
10374	374	379	0.20		5'
10375	379	384	0.50		5'
10357	384	389	3.25		4'
10358	389	394	4.65		
10359	394	399	17.50	38'	3½'
10360	399	406	15.80	12.25	4'
10361	406	411	17.75		4
10362	411	416	13.40		5
10363	416	419	10.70		3
10364	419	422	13.40		3
10376	422	427	1.05		3
10377	427	433	1.33		3
10365	433	437	16.60		3
10366	437	442	7.81		4
10367	442	446	Tr		3
10368	446	451	1.15		5
10369	451	457	0.38		5
10370	457	462	4.48		5
10371	462	468	7.41		5
10372	468	473	4.06		4½
10373	473	478	6.33		
10378	478	483	3.28		5
10379	483	488	4.53		5
10380	488	493	2.83		ST 4
10381	493	497	0.85		ST 4
10382	497	501	0.75		ST 4
10383	501	505	1.58		ST 4
Weighted Averages					
	369	384	15'	1.36%	Zinc
	384	422	38'	12.25%	Zinc
	422	433	11'	1.10%	Zinc
	433	493	60'	4.76%	Zn
	384	493	109'	7.01%	
	493	505	12'	1.14%	

LOCATION Little War Creek

PROPERTY

THE NEW JERSEY ZINC CO.

SECT. C-1366 X B-1390 Long.

HOLE NO. LW-58

ELEVATION 1607.68

STARTED 6/10/58 BOTTOMED 6/17/58 LOG BY ADH, EWR

COORDS. 746,234.25N 779,495.33

SHED NO. DISCARDED

BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO	Zn	
0	87					RC	BX-AX 115 Openings 92-93, 94-99, 101-108						
87	258	171	134	Oma		Dl	Sc Sgs 114-115 Lt Strat 121-126 ReXln 126-131 Sc Bnd Sgs w/Ce Pebs 131-134 WhCe 143-144 Bnd Sgs 148 Abu Fi Sgs 154-156 Abu Sc-Bnd Sgs w/Ra Ce Pebs in Xln Dl 165-170 Abu Bnd Sgs → Sc Sgs → Ce & Ce Pebs 209-211 Ra Sgs 192 DK MXln Dl w/Ce 220-223 DK Fi-MXln Shy Strat 237-252 Crs Bnd Sgs 249 Abu Sc-Bnd Sgs 257-258	Tr Sp 281 Shi Sp 284-285, 293-296, 298. Sh. 307 314-315, Tr Sp					
					CeMtx 258								
258	368	110	100	OK	U-255 340	Dl	Abu Sc Sgs 289-290 Sgs w/Ra Con 293-296 Sc Sgs w/Ce 300-303 Ce Mtx Ss 305-306 Sc Sgs Lo Abu 215-217 Ce Sed Br w/Sgs 322-323 Fi Lt Dl w/Ce Nods 338-342 Sc Sgs 340 Ce 341-342 Sc Sgs 360	330, in Ce 340, Trs Sp 346, 350, 353, 359, 366 Shi Sp 380, 387	10384	368	371	16.48	
									10385	401	406	1.23	
368	371	3	2			Min	Est @ 8% Zn			387	401	est ½% Zn	
371	387	16	15			Dl	Sc Sgs in Strat 376-377 3"						
387	405	18	16			Min							
405	435	30	28		TR? 435	Dl	Sgs over Sh 424, Sgs in ½" Sh 430 Brn Mot 431-434						
435	519	84	59		E? 490	Dl	Sgs in th Sh 439 Sgs 441 Sed Br 441 (Poss TR?) Sgs in ReXln w/Ce & Sh 450 Sed Br w/Sgs 453-456 Lo Sed Br, Fi Dl w/Ce 497-518, Crs Bnd Sgs 506						
519	536	17	15			Ls							
536	610	74	62		T Bd? 562-567	Dl	Fi Dl w/Ce 536-540 ReXln Dl w/Wh Ce Nods 540-552 MXln Dl 552-571 Abu Sc Ce Nods 578-610 Sc Sgs in Fi Dl 597						

LOCATION Copper Ridge Belt Sector II Area

PROPERTY M.C. Tunmire

THE NEW JERSEY ZINC CO.

SECT. C-1366 X

STARTED 6-19-58 BOTTOMED 6-26-58 LOG BY E.W.R

SHED NO. C DISCARDED None

HOLE NO. LW-59

ELEVATION 1592.26

COORDS. 746,069.52 N; 799,608.98

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		
0	48	48	–			RC	Bx-Ax 80 Open 50-54, 61-64, 67-69, 81-96,						
48	367	319	261	Omr		Dl	97-103 Sc Sgs above Strat 64 Abu Sc-Bnd Sgs 97 Open 97-103 Sps Bnd Sgs 120 Sc Fi Sgs in Rex In 128-129 Sc Sgs over 3" O. Ce 135-136 Sc Sgs, Ce Chips 137 Grn Sh 138 Bnd Sgs 148 V Abu Ce Mtx → Sc-Bnd Sgs 162-164 Ce Nd Zo 170-175 Sc Abu Sgs 172-174 V Abu Fi Sgs 178-180 Sgs 212 DK Dlw/Shy Ptgs 217-220 Sc Sgs over 1' Rex In 229 Ce Nd 233 Sc Sgs over 4' Lt Strat Dl 236-237 Sc-Bnd Sgs, Ce @ Bs. 4' Mat Dl 251-252 1' Wh. Ce 254-255 Bnd Sgs @ Bs 2' Lt Dist Strat 259 Sc Bnd Sgs in Rex In 264-265 V Abu Sgs, Dol Peb Cgl 273-274 Ce Nod 279 Dol Peb Cgl, Abu Sgs (60) 304-306 Ra Sgs, Oo? Ce 298 Crs Sgs over 6" Ce 318-319 Ra Sgs 332 DK Dlw/Shy Ptgs 347-350 V Abu Ce Mtx Sgs 359 V Abu Ce Mtx Sgs 367						
					60 Cgl Sps 306								
					Ce Mtx								
367	540	173	169	OK	367	Dl	WK Lo Ang Fa 40° @ 374 Sc-Bnd Sgs 395-397 V Crs Sgs in Rex In Dl 407-408 Ce Nod 425 Ce Nod Zo 425-433 Ce Peb Cgl 440 Ce Nod Zo 450-458 Sc Sgs w/ Ce Chips below Dist Strat 454 Sgs w/ Ce Pebs 459 Sgs, Grn Sh 480 Ce Nod Zo 476-482 Sc Sgs over 3" Grn Sh 496-497 Ra Sgs in 8" Grn Sh 526	Tr Sp 440, 444 478, 487, 504, 523, 529-533					
					Brwn Oo 433								
					U-255 454								
					TR.								
540	543	3	3		540	Dl,		Tr Py 542					
543	544	1	1			Min	Mineralized			543	544	1'	10% Zn Est
544	562	18	17			Dl							
562	567	5	5			Min	Mineralized	Tr Sp 550, 554, 561		562	567	5'	2½% Zn Est
567	616	49	45		E 589	Dl							
616	623	7	7			Ls							
623	628	5	5			Dl		Sh, 569 Tr. 577					
628	633	5	5			Ls	Abu Grn Sh 629, 631-633	Str Py 579-590 (est 3-3½%), 595, 600, 604, 611					
633	635	2	2			Dl							
635	655	20	16			Ls	Ce Nod 654-655						
655	667	12	12			Dl	Ra Sgs 658, 667 Abu Ce Nods 658-668						
667	669	2	2			Ls							
669	710	41	33		T Bl? 675-677	Dl	Ra Sgs above 1' M-Xln Strat 670 Sc Sgs in Fi Dl 675-677						

LOCATION Little War Creek Area

PROPERTY James Brewer

THE NEW JERSEY ZINC CO.

LONG Sect B-1390
Dip Sect B-1377

STARTED 6/28/58 BOTTOMED 7/21/58 LOG BY ADH & WR

SHED NO. DISCARDED

HOLE NO. LW-60

ELEVATION 1609.62

COORDS. 745,969.77N 798,183.03 E

BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO	Zn
0	55					RC	NX-BX-70 BX-AX 95 Open 61-65, 208-215					
55	308	253	187	Oma		Dl	Cot RK 88-90 Str Mylon 102 Cot RK 110 DK Dl 114-124 Cot RK 137-139 Ra Sgs in Wh Ce Br 140 Abu Fi Sgs in Sed Br 146 Sc-Bnd Sgs in Lt Strat 149-150 M-DK Fi Mn Dl w/Wh & Br Ae 155-164 Sc Sgs 168 Sc Bnd Sgs in Fe Strat 184-185 Sgs & Ce Pb Con b/low 2' Mn Mot 187 Hoy Ce 222, 223 Ce Mtx Ss 222 Hoy Ce 232 Ra Sgs in Mn Brn Dl 242 DK Dl Zo Fi-Fi Mn Lo Mot Lo Ae 245-270 Brn Mn Dl w/Abu Ae 282-288 Abu Sgs over Wh Silic 289-290 Abu Sc Sgs 301 Ae Zo 306-308 Ce Mtx Ss & Ce 308			304	305	est 6%
										308	312	est 1½%
										352	357	est 1¾%
308	312	4	3	Oma		Min	Est 2½% Zn					
312	352	40	34	Oma		Dl	Wh Ce 317-318 Ra Bnd Sgs & Ce Chips in Strat 323 Sc Sgs w/Ce Chips 330 Sgs in Fi Mn Dl 341-342 Ce Nod Zo 346-351	Sh Sp 344				
352	357	5	5	Oma		Min	DK Sp in Fr Fi Dl - Est 1¾% Zn					
357	445	88	86	Oma	60 Con 376 45 Sgs 395 Ce Mtx 445		Sgs & Ce Pb Con 376 Vy Abu Sgs above Ce 341-392 Abu Ce 392-396 Ae Zo 404-406 Sc Bnd Sgs 407-438 Frag 436 Sc Sgs → Ce Mtx 444-445	Sh & Tr 357, 360 375				
445	463	18	18	OK		Dl	Vy Abu Sgs 453-454 Frag 459	Tr Sp 450				
463	514	51	46	OK		Min	Sc Dis Sp in Wh Dol Est ¼% Zn, Abu Sc Sgs 467 Abu Sc-Bnd Sgs @ base of Strat 483-486	Str Sh Sp 477-480, 485, 488-491				
514	653	139	132	OK	Brn Bo? 524 Y-255 542	Dl	Sc Ce 520-529 Ce w/Sgs 524 Grn Sh 528 Ce Nod Zo 539-546 Bnd Sgs in Fi Dl 542 Ra Sgs w/Ce Chips above Grn Sh 546-547 Hoy Ce 571-573 Ra Bnd Sgs 574 Grn Sh w/Ra Sgs 588 Ce 589-600 Ra Sgs 620 Sed Br 626-638 Sed Br w/Ce Pebs & Ra Sgs 640-644, 645-646, 647-648. (Apparently coring blocks & debris on erosional surface 638-653	Sh Sp 533 Tr Sp 561-566				
653	799	146	141	OK	TK8 653		Sgs 654, 658, 661, 693, Ce 696, 698 Fi Dl w/Ce Nods 708-711 Abu Silic 717-719 Hoy Ce, Cot RK & Ce Con Fi Dl 732-734 Sed Br 744-748 757-759 - Sta Silic					
799	825	26	25	Oip	T Bed 799-803		Abu Sc-Bnd Sgs in Fi Dl 803, Ce Pb Con in Mn Brn Dl 803 Rep Dip 40° @ 799 Silic 804-805 Ce Blo					
825	Bottom											
							100% Dl in C & S Beds					

LOCATION Little War Creek Area

THE NEW JERSEY ZINC CO.

LONG Sect B-1390
DIP Sect C-1387

HOLE NO. LW-61

ELEVATION 1625.29

STARTED 7/17/58 BOTTOMED 8/2/58 LOG BY EWR

COORDS. 745,885.58N 798,786.65E

PROPERTY James Brewer

SHED NO. DISCARDED Nil

BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	69					RC	BK-AK 80 Openings 564-566 Lim after Sp				
69	510	441	408	Oma			Silic 105-113 DK Sty Dl 80-83 3' Strat w/Abu Bnd Sgs & Top & Ra Sgs @ base 126-129 App dip 45° Cot Rk 163-164 1" Abu Sgs 166 Sc-Abu Sgs & Ce Pbs 177, Sc Sgs @ Top of Strat 181 Irreg Ce Nd 196 Bnd Sgs @ base 2' Strat 198-200 Buff Ac Zo 202-203 Sc-Bnd Sgs 212-213, 219-220 Cot Rk 220-221 Ra Sgs in Shattered Dl 224, Abu Bnd Sgs above Ce 224-225, Abu Sc-Bnd Sgs w/Lo Dl Pbs 253-255, Hay Ce 357, 1" Grn-Sh 263 Cot Rk 264-266, V Abu Sgs 274-276 (100?) Sc Sgs Ce Chips below Grn Sh 286, H Ang 80° Fa 296-297 OP Pebs, Sgs 314 over 1' Ce Silic Dl 338-341 Dist Strat w/Crs Sgs & Lo Ce Chips 351-352 Ce Peb Con 360-361 Hay Ce 365 L'Wh Ce 373 X'lm Spin Vug 373 Thin Bnd Sgs 378 Sgs & Ce Chips in Mot Dol 389 Ce Mtx Ss Tr Sp in Ce 360-361 Sc-Bnd Sgs 357-358 Ce Nod Zo 404-407 Sgs & Ce Pebs 431 Sgs & Hay Ce 433 Ce Pebs 453 2" Ce Mtx Ss w/Hay Ce 455 Ra Sgs 459 Crs Ce Mtx w/Ce Pebs 469-470 Dk Dol w/Ac Ac 482-484 Ce 485 DK Dl w/Sh Pts 493-507 Abu Sgs Ce Mtx Ss	Tr Sp-265 Shi Sp 266-267 Sc Tr Sp 280-284 Tr Sp in gangue Dol 297 Shi Sp in Mtx in Dl 356 Tr Sp 363 366-367 370-372, 373-403, 426, 421 St Shi Sp 429-430 Tr Sp 435				
					Ce Mtx 510						
510	606	96	86	OK		Dl	Abu Sc Sgs 523-525 Sgs 535 Sc-Abu Sgs 559-561 2" Ce Mtx Ss w/Lo Ce 569 Sgs & Hay Ce 600	Shi Sp 531 Tr Sp 533 Shi Sp 563 Tr Sp 597, 598			
					4-255 600						
606	610	4	4		TR??	Min	Est 1% Zn	Sc Tr Sp 608-610			
610	709	99	90		709	Dl	Ra Sgs 623 Ce Nod Zo 620-627 Ra Sgs w/Ce Chips 630 Lo Hay Ce 650-651 Bnd Crs Sgs 655 1" Grn Sh 673-674 Bd Ce Pebs 687	Tr Sp 651 Tr Py 659, 665 Py 667 Tr Sp 684, 715 St Shi Sp			
709	848	139	131		E? 771	Dl, Ce	Brn Mot Dl → DK Brn Dl, Abu Whi Silic 732-744 Fr Dl w/Ce 768-771 V Hay Ce 776-786 Ce Br 808-842	723-724 Tr Sp 731, 742 Tr Py 754, 765 Shi Py 769 Tr Py 772, 783 Tr Sp 792 Tr Py 796 Shi Py 811			
848	861	13	12		TBd 848-852	Dl	Sc Sgs w/Ce Chips 852				
861	867	6	6			LS					
867	875	8	6			Dl					
			Bottom		875						

LOCATION Copper Ridge Belt
Little War Creek Area

PROPERTY J. Brewer

THE NEW JERSEY ZINC CO.

Section C-1377 X
C-1479 X

STARTED 7-21-58 BOTTOMED 7-30-58 LOG BY WJC-EWR
SHED NO. DISCARDED

HOLE NO. LW-62
ELEVATION 1612.57
COORDS. 746,054.19 N 799,134.52 E
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		
0	29	29	—			RC	NX-Bx 30 Bx-Hx 40 Open 65-69, 86-90, 91-95 Sc Sgs over 2' Dist Strat 34-35 Hi Ang Frg, Fa ? 38 Sed Br 40-41 St? 55° Fa, Mylo 52 Ce Mtx below 2' Rexln Mot 72 Sc-Bnd Sgs 78 Sc-Bnd Sgs 99-101 Ce Mtx Sg w/Ce Peb Cong 101 Ra Sgs 104 Bu Ac Zo 103-106 Abu Sgs in Fi Dl 107 Sc Sgs in M Xln Dl w/Oo Ce Chips 109-110 Ce Nod Zo 109-111 Bu Ac Zo 126-135 1" Ce Mtx Sg above 2" V Abu Lo Crs Bnd Sgs 138-140 Tan Ce Mtx Sgs w/Hvy Ce 151-152 Hi Ang Fa (85°) w/Mylo 153-155 Vy Abu Cr Sgs, Lo Ce Pebs 155-158 Hvy Whi Ce 158-159 Fr Zo 163-166 Sc Sgs in Eu Dl 219 Ce → Brn Grn Sh 220-221			231	233	2'	2% Est
										408	456	48'	½% Est
										466	480	14'	1½% Est
231	234	3	3	Oma		Min	Lt Sp in Frs, in Fi Dl, Ce	Sp 231-233 St Shi Sp 234					
234	351	117	93	Oma	60 Cgl 241 95 Sgs 306 Ce Mtx 351	Dl	Grn Sh 237 Ra Bnd Sgs in M Xln Dl 241 Bnd Sgs 257 Sgs & Ce 263 Ce Nod Zo 263-267 Crs Sgs, Dl Fra 291 Ce Fds & Sgs, Ce 306-308 Sl Bk 311-319 Lx Dl w/Ac 319-321 Sgs in Strat 322-323 Lx Dl w/Chy Hvy 337-341 Hvy Ce Mtx 55 350-351						
351	408	57	50	Oq	Brn Oo.	Dl	Sc-Bnd Sgs 359 Sc Sgs 370 DK Dl w/Ac 374-383 Sg, Lo St Sgs 386, 391 Oo Ce w/Sgs 394-396 Oo Ce 400	Tr Sp 393 St Shi Sp 395 Tr Sp 405 St Shi Sp 422, 446					
408	456	48	36		394-396	Min	Est ½% Zn Sgs 428-437						
456	466	10	10			Dl							
466	480	14	14		TR	Min	Est 1½% Zn Ra Sgs, Ce Chips 462 Ra Sgs 473 Sc Sgs 477, 482						
480	551	71	64		551	Dl	1' Hvy Br, Ce below 3' Dist Strat 484-488 Abu Crs Sgs 493 Ra Sgs 504 Abu Sc Sgs 548	Lo Trs Sp 480-493 Shi Sp 494-501 Tr Sp 511, 545					
551	650	99	79			Dl	Fi M Gy Dl 580-581 Sed Br w/Lo Abu Dl 553-616 Abu Wh Silic Br 616-630 Fi M Gy Dl 632-634 Fi M Xln Dl w/Lo Abu Ce, Silic 634						
650	660	10	10			LS							
660	690	30	27				Dl w/Hvy Ce Nds, Frags 660						
690	693	3	3			Ce	Whi Silic Dl						
693	720	27	25			Dl	Fi DK Dl w/Ce Nds, Frags						
	Bottom	720					R&S Eds 94% Dl						

LOCATION Little War Creek Area

THE NEW JERSEY ZINC CO.

Section C-1377 X

HOLE NO. LW-63

ELEVATION 1587.04

STARTED 7/31/58 BOTTOMED 8/15/58 LOG BY EWK

COORDS. 745,887.92N 799,252.38E

PROPERTY James Brewer

SHED NO. DISCARDED

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM	MKRS	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	51					RC	BX-AX 70 Open 73-82				
51	737										
51	737	686	570	Franklin		DI	Ka Bnd Sys 53 DK DI 84-95 LKDIW/Sy Pg 116-117 Abu Bnd Sys 122 Sed Sys abu 1 Wh C 135-137 F. M Xln DK DI w/Ocher 143-147 Ka Sys 152 Sy 153, 176-178 215, 232, 259-261 271-272 Bnd Sys 277 Abu Sc Bnd Sys w/Ce Chr Powder Wh C 278-281 Cen Tec 281 Prn Mo PY 4/0 Sc Bnc 292-297 CK DI w/R 297 Sec Sys 3 Ce Pebs 322 Sy 341 H Ang F 341 Strat DI 351-356 Bnd Sys 353 Sc Ce Mx 355 Wh C 357 Sy Sc in Mx Xln 361 60° Fing 363-367 Wh C 370-371 Sc Bnd Sys 375-376 Abu F Sys in Mx Xln Bnd DI 383-384 Abu Sys w/Ce Pebs & base Strat 393 Sy Wr Wh C 400 Ce Nod Zo 401-405 Fing 402-411 420 VR DI w/Ce 418-424 Tan Bnd Sys 432 DK Ac Zo 442-445 51, 57° Fg w/Mylon 445 Ce 445 446 Rec Sys Strat 464 M DK, DI w/Ocher 485-503 M Brn Strat DK w/I Abu Sys & base 505-507 Abu Sc Bnd Sys 516-518 H Ang Fing 531-532 Abu Bnd Sys 532-555 Hug Ce Con w/Ce Sys Hug Wh C 557-537 Fg w/Mylon 575-576 Fg 20 580-583 Mylon 580-581 Sed Bx 596-600, 608 613 Sc Sy 3 622 Sys in Ce 624 625 Sy 627 629 650, 659 Sys Fg in Ce 647, 650-651, Cr 655 661 Ce 668 669					
					T.R. 737		Abu Sc Sys 718-719 Sed Bx 717-737				
737	819	82	81		E mkr 779	DI	Ce 766-769 775-779 782-7 L Abu DI w/Ce Nod 779-782 Wh Ce Sil Ce Dl 800-807 Sed Bx w/Sc Ce 813-817	Tr Py 813, 816			
819	833	14	12			FS					
833	885	52	49			DI	Hug Sc 833-835 Sy Sc 840-844				
885	Bottom										
							R & S Beds 91% DI				

LOCATION Copper Ridge Belt
Little War Creek Area
Sector II
PROPERTY James Brewer

THE NEW JERSEY ZINC CO.

DIP Sect C-1387

STARTED 8-2-58 BOTTOMED 8-14-58 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. LW-64
ELEVATION 1618.60
COORDS. 746,048.88N ; 798,655.23E
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	40	40	–			RC	NX-BX 42 BX-AX 62				
40	328	288	235	Oma			Ce Mtx SS 62 Sc Sgs 76 Dn Chocolate Brn Dl 95-104 Abu Sc Crs Sgs w/Ce Chips Lo Ce Mtx, Lo Oo 104-106 Sgs 112 Oo Ce 113-115 Abu Sc Sgs 120-121 Hry Wh Ce 121-123 1" Mylo in DK Dl 137 Ra Sgs 129 Sgs 171 Wh Ce 194, 199-201 Vy Abu Sgs in Strat 221-222 Ra Sgs 224 Ra Sc Sgs & Ce Pebs in MXln Dl 254-257 Frg 261 DK Ae Zo 264-270 1" Abu Sgs over Ce 273 Wh Ce 267 MXln Dl w/Sgs & Abu Ce Pebs 284-287 Hi Ang Frg 307-308 Thn Grn Sh App Dip 43° @ 308 DK Dl w/Shy Prgs, Lo Frg 308-320 DK Brn Mot Dl w/Frg 320-324 Bu Strat w/1' Sc-Bnd Sgs @ Bs 324-328	Shi Sp 7+ Tr Sp 106 Shi Sp 108 Tr Sp 117, 255-256				
					45? 287 Ce Mtx 328						
328	397	69	68	ok		Dl	Sc Sgs 339 Shat, Mylo 348-350, 352, 365-371 Sc Sgs 346, 365, 369 Abu Bnd Sgs 375 Sgs, Ce 380 St Frg, Mylo 382-385				
397	417	20	16	Fa		Fa					
417	534	117	96			Dl	L Gy Strat, Dist Bn, Sgs 429-430, 431 (4 255?) Ra Sgs in Ce 457 Sgs over 6" Blu Grn Sh 471 Sgs, Grn Sh 493, ~~583~~ Sgs 511 Co t RK 526-529 1' Grn Sh 552-553 Fi Dl w/Ce Nods 553-5~~41~~ Ce 578				
					TR 534						
534	600	66	63			Dl	Ls Brn w/ Dl Mtx 615 Hry Wh Ce 633-634 Sc Crs Sgs 647				
600	654	54	54			LS					
654	676	22	19		TBd 674-676	Dl	Abu Irreg Blu Ce 654 Fi-MXln Dl w/Abu Ce Nods 654-658 Fi Dl 674-676				
	Bottom		676								
							R&S Bds 61% Dl				

THE NEW JERSEY ZINC CO.

C-1387 - Dip Sect

HOLE NO. LW-65.

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area

PROPERTY J. Brewer

STARTED 8-15-58 BOTTOMED 8-26-58 LOG BY EWR

SHED NO. DISCARDED

ELEVATION 1683.85

COORDS. 746,215.36N 788,549.47

BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	91	91	—		1	RC	Bx-Ax 100 Open 93-95				
91	247	156	135	Oma		Dl	Sc Sgs 91-93 2" Abu Sgs 100 Whi Ce 100-101 Blu Ce 104				
							Frg 110 Th Bn Fi Sgs 122 Fi Sgs in MXln 129 Abu Sc-Bnd				
					60@ 193		Sgs 137-138 Bnd Sgs w/Ce Chips 142 Cgl w/Sgs, Ce Chips, Sh				
					45@ 208		Frags 154 Whi Ce 169-171 Sc Sgs 173 Crs Ce Peb Cgl w/Sgs 193-				
					Ce Hx		194 Ce Nds 197-198 Hvy Oo Ce 208-209 Ra Sgs 210 Wk Bd Pl Fa				
247	423	176	142	OK	247	Dl	241 Vy Abu Sgs 246-247 Abu Sc-Bnd Sgs 257 Frg 255-262, 269-				
							270 Abu Bnd Sgs 290 Sed Br 306-312 Hi Ang Fa w/Mylo 332-				
					TR		334 Frg w/Mylo 347-350 Bnd Sgs 349 Sed Br 352-400,				
					423		406-408 Sgs above Grn Sh 423				
423	580	157	122		E-Mkr		Frg 483 ST 45° Fa w/Mylo 542 Crs Sgs 576				
					464-472						
	Bottom	580					R & S Bds 100% Dl				

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area
PROPERTY M.C. Tunmire

THE NEW JERSEY ZINC CO.

Long Sect B-1390 C-1490 X

STARTED 8-18-58 BOTTOMED 8-25-58 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. LW-66
ELEVATION 1616.48
COORDS. 746,194.53N; 799,414.89E
BRG. INCL. -90

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	100	100	—			RC	BX-AX 105 OPEN 145-147	
100	287	187	170	Cmu		Dl	Sgs, Grs Peb Cgl 125 Fa Zo w/Mylo 148-154 Abu Sc Sgs 154	
							155 Whi Ce 157-158 Ce Nod Zo 166-171 Bnd Sgs over Grn	
					"66"		Sh 172 Abu Fl Bnd Sgs 178 Abu Fl Sgs, Ce Chips in Mx In Dl	
					226		184-186 Abu Sc Bnd Sgs w/Ce Frags 192-193, 198-199 Sc-	
					"45"		Bnd Sgs w/Grs Bu Peb's 225-226 Fa Sgs 223 Bnd Sgs w/Ce	W St Shi Sp 223
					241		Chips → Ce Peb Cgl → Ce 240-241 DK Dl w/Hc's 252-256	
					Ce Mtx		Ce Mtx Sc 286-287	
287	366	79	66	OK	287	Dl	V Abu Sgs → Ce Mtx Ss 297-298 Fa Sc Sgs 309 Abu Sc Bnd	Sc Trs Sp 323-327
							Sgs above Grn Sh 333-334	348 366, 370-387,
366	370	4	4			Min		391-397
370	387	17	14			Dl	St Fa Br, Mylo (35°-60°) 386-387	
387	391	4	3			Min		Sc Trs 416-425
391	397	6	4			Dl		
397	403	6	5			Min		
403	406	3	3			Dl	Abu Grs Sgs 405	
406	416	10	9			Min		
416	425	9	9			Dl		
425	443	18	13			Min		
443	446	3	3			Dl		
446	454	8	8			Min		
454	458	4	4			Dl		
458	464	6	6			Min	1' Silic Dl 460-461	
464	468	4	4			Dl		
468	485	17	16			Min		
485	487	2	2		TR	Dl	Sgs, Grn Sh 487	
					487			
487	563	76	64			Dl		Tr Sp 496
563	583	20	20		1	LS	Grn Sh 580-581	Tr Sp 512 Tr Sp 532-
583	586	3	3			Dl		535, 541, 545
586	590	4	4			LS		
590	600	10	10			Dl		
600	603	3	3			LS		
603	640	37	31			Dl	Abu Whi Silic 618-632	
				Bottom		640	R & S Beds 82% Dl	

ANALYSES SMPL. NO.	FROM	TO	Footage	Zn	Core Recovery
	223	225	2'	5%	EST
10451	366	370	4'	3.37	4
10452	387	391	4'	2.39	3
10453	391	397	6	0.17	
10454	397	403	6'	2.31	5'
10455	403	406	3'	0.25	3'
10456	406	411	5'	2.08	4'
10457	411	416	5	2.50	5
10460	425	433	8'	1.00	4'
10461	433	438	5	4.65	5
10462	438	443	5'	3.09	4'
10464	443	446	3'	0.15	3'
10463	446	451	5	1.98	5'
10465	451	454	3	Tr	3'
10466	454	458	4	Tr	4'
10467	458	461	3	2.50	3'
10468	461	464	3	1.18	3'
10469	464	468	4	Tr	4'
10470	468	473	5	2.70	4'
10471	473	477	4	3.20	4
10472	477	480	3	0.90	3
10473	480	485	5	2.40	5
10458	416	420	4	0.50	4
10459	420	425	5	0.48	5

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area

PROPERTY M.C. Tunmire

THE NEW JERSEY ZINC CO.

STARTED 8-27-58 BOTTOMED LOG BY EWR
SHED NO. DISCARDED

HOLE NO. LW-67
ELEVATION 1509.50
COORDS. 745,681.70 800,238.75
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	10	10	—			RC	Nx-Bx 11 Bx-Ax 20				
10	696	686	644	Oma		DI	Red Mot DI 95-106 CeNod Zo 145-152 1' CeMtx Ss 230-231 Bu Strat DI w/Bnd Sgs, Thn CeMtx → Crs Sc Sgs 257-258 Thn Bnd Sgs in Strat 287 Sgs over Bl Sh 293 Crs Sgs 309 1' Strat over CeMtx Ss 347-348 Silic DI 361-365 Ra Sc Sgs 380-381 Sc Crs Sgs, Ce Pebs below 4' Bm Mot 412-416 Abu Bnd Sgs in Strat 424 Sgs above Grn Sh 439 Abu Sc Sgs 449 6" CeMtx Sgs above Grn Sh 458 Abu Sc-Bnd Sgs → CeMtx → Wh Ce 481-483 Abu Crs Sgs w/Ce Chips 494 Vy Abu → Sc Sgs 500-501 DK DI w/Hes 551-556 DK Ce 541 Bnd Sgs 557 Hy Wh Ce 552 Sc Sgs @ Bs 6' Bu DI 569 Hy Ce 578 Ce, Grn Sh 585 Sc-Bnd Sgs 589 Abu Crs Sgs w/Ce Pebs 602-603 Ra Crs Sgs above Grn Sh 608 Abu Crs Sgs w/large DI Frg gs 638-639 Abu Crs Sgs w/Ce 653-654 DK DI w/Hc 660-662 Bl Sh 669 Abu Sgs → CeMtx 696		60 Cgl 639 45 Sgs 654 CeMtx					
696	850	154	129	OK	696	DI	Abu Sc Sgs below 13' DK Bu DI 720-721 CePebCgl w/ Sgs 724-725 Ce w/Sgs 726-728 CeNdZo w/Bu DI 746-750 Sgs 766, 770 CeNod 774 Hy Ce 786 Frg 796 Grn Sh 800 Frg 800-802 Wh Ce 807-810 Grn Sh 814, 823, 825 Sed Br w/ Grn Sh, Ce 840-842	St Sh, Sp 807				
850	908	58	56		850 E 873 TR	DI	F. DI w/CeNds 873-878 CE				
908	915	7	7			LS					
915	917	2	2			DI					
917	933	16	14			LS					
933	936	3	3			DI					
936	975	39	39			LS					
975	980	5	4		LP	DI	Hy Ce 977				
980	1006	26	23		996	LS	Crs Sgs 997				
1006	1010	4	4	OK	T.Bd	DI					
1010	1028	18	17			LS	DI 1022-1023				
	1028	Bottom					R&S Beds 45% DI				

THE NEW JERSEY ZINC CO.

Section C-1397

LOCATION: Copper Ridge Belt, Sector II, Little War Creek Area

PROPERTY: M.C. Tunmire

STARTED: 9-12-58 BOTTOMED: LOG BY: EWR-WJC

SHED NO: DISCARDED:

HOLE NO. LW-68

ELEVATION: 1584.87

COORDS. 796,035.21 N; 799,772.17

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	10	10	–			RC	Bx-Ax Open 17-31, 33-36, 35-37, 43-47, 81-84				
10	420	410	360	Omn		Dl	Bnd Sgs 48 DK Sh x Dl below Strat 50-51 Abu Sgs 81 Wh Ce 93-95 1" 70° Fa 96 Abu Sc Sgs above A Strat 107 Wh Ce 141 Grn Sh w/ Sgs 142 Ce Mtx Sgs 145 Abu Sc Sgs 151-152 Sc Sgs 178 Abu Sgs; Ce Mtx 204-206 Ce Abu Sgs 215-217 Abu Sc Sgs 221-222 Sc Sgs 234 Cat Rk → Bl Ce 223 Sc Sgs in Rex In 260 Sc Fl Sgs 277 Abu Sc Sgs in Dist Strat 286-287 Ra Sgs w/ Fl Rk in Strat 294 Bnd Sgs 299 Cat Rk 306-308, 312 Rg Sgs 320 Sc Bnd Sgs 327-329 Crs Ce Peb Cgl w/ Sgs 332 Hvy Ce 336 Bdg Pl Fa 350 Crs Peb Cgl w/ Sgs 361-362 Abu Sgs w/ Ce Peb Grn Sh 377 Bnd Sgs 390 Grn Sh 399 Fa (30°) @ 416 Sc Sgs Ce Mtx 420				
					60 Cgl						
					362						
					45 Sgs						
					377						
					Ce Mtx						
420	602	182	160	OK	420	Dl	Abu Sgs 420-431 Frg Fa ? 434-436 Abu Sc Sgs 460-461 Brn Ce 470 Sc Fl Sgs 468 Ra Sgs, Grn Sh 484 Crs Sgs 497 Ce Nd Zo w/ Dist Bed 517-523 Ra Sgs 521 Ce Br 543-544 Crs Sgs over Grn Sh 545 6" Grn Sh 560, 589				
					U-255?						
					521						
					TR						
602	668	66	53		602	Dl	Abu Grn Sh w/ Sgs 602-607 th Grn Sh w/ Sgs 609, 612, 617, 624				
668	672	4	3			Ls					
672	680	8	7			Dl	Hly Dist Sed Br				
680	702	22	22			Ls					
702	710	8	7			Dl	Fl - Fl x In Dl w/ Abu Dol				
710	739	29	28			Ls	Sgs 730				
739	752	13	13			Dl					
752	754	3	2			Ls					
754	758	4	4			Dl					
758	761	3	3		T Bd	Ls					
761	770	9	9		762-766	Dl	Ce Nd Zo 762-766				
		Bottom 770					Rf S Beds 66% Dolomite				

THE NEW JERSEY ZINC CO.

LOCATION: Copper Ridge Belt, Sector II, Little War Creek Area
PROPERTY: James Brewer

SECTION C-1387, C-1391

HOLE NO. LW-69

ELEVATION 1605.64

STARTED 9-23-58 BOTTOMED 10/20/58 LOG BY E.W.R.

COORDS. 745,644.88N; 798,948.63E

SHED NO. DISCARDED

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO.	FROM	TO
0	42	42	—			RC	Bx = Ax 50				
42	724	682	636	Cma		DI	Sgs 87 Bu Sed Br 88 Ce Nd Zo 88-96 Frg 135 6" Cat RK 213 Crs Bnd Sgs in Lt Strat DI 214-215 Ra Sgs 220 Lo Ang Fau Mylo 233 Sed Br 233-235 Frg 236 Hi Ang Frg 253-255 Sgs Grn Sh 259 Frg 260-262, 265 Sf 60° Fa Zo 271-274 Crs Sgs P 287 Sc Sgs 321 Sed Br 338 6" Ce 342 Ce Sed Br 359-362 Th Bnd Sgs — Hvy Ce 386 Ce Mtx Ss 399 Cat Rk 399-400 Sc Sgs 402 Abu Sc Bnd Sgs 430 Sc Ce 436-438 Abu Sc Sgs w/Ce 439 Frg 448 Sc Pb Sgs 465 Ra Sc Sgs 473 Cat Rk 476-478 Sc Sgs Ce 484-485 Cat Rk Silic DI 486-496 Sc Sgs Ce 529 Dk Blu Aegs 538-547 Hvy Ce 548-549, 551-554 Abu Sc Sgs 558-560 Cat RK 560-565 Ra Sgs, Grn Sh 573 Cat RK 573-574 Abu Sgs 581 Abu Sc Sgs 588-589, 597-598, 600 Sc Sg w/Ce Chips 604 Hvy Ce 604-605 Silic 633-635, 637-640 Ra Bnd Sgs 641 Abu Sgs 663-664 Hvy Ce 664-667 Ce w/DD 680-687 WK Frg 698 Ra Crs Sgs 723				
					Ce Mtx?						
732	951	219	190	OR	732	DI Ce	Sf Fa Zo 743-748 Crs Sc Sgs 750 V Abu Sc Sgs 768-771 Abu Sc Sgs in Br 759-760 Sgs 783, 787 Sed Br 789-803 Crs Bnd Sgs 810 Ra Sgs 828 Sed Br 851-853 Sc Sgs 853 Ce 853-855 Ce 858 Ce Nod Zo 896-901 Red Mo + DI 913-923, 937				
					T.R.?						
951	1079	128	99		951	DI Ce	Sgs 958 Abu Silic in R Bd. F DI 1047-1050, 1053-1055, 1056-1057				

Not Drilled Deeper because of Intense Silic

R & S Bds 100% DI Ce

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

AX-TENN B-1407
C-1449 X

STARTED 10/27/58 BOTTOMED 10/31/58 LOG BY ADH, EWR
SHED NO. DISCARDED

HOLE NO. LW-70
ELEVATION 1616.32
COORDS. 746,333.29 N 794,752.17 E
BRG INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO.	FROM	TO	Core	% Core Recovery	% Zn
0	108					RC	BX-AX 120							
108	122	14	11	OK	R Bd	Dl	M Xln L-M Gy Dl, We Mot Lo Bds							
122	128	6	4	"	"	"	M with Lo C, Lo F, Grain Dl Brn w/ 10% Gangue Dol App Dip 36°							
128	173	45	34	"			Lo We Frng Lo Sed Br 170-172 F, Grn "E"?							
					E-172		C	Sh, Py 174	10478	188	191	3		1.02
173	186	13	9	"			Crs Grn Dl w/ F, Grn Bds Moderate Met		10479	191	196	5		3.49
186	188	2	6"	OX	S-Bd	Ox Θ	6" Core We, Ox Zo		10480	196	201	5		3.35
188	207	19	19	OK			S Bed Ore Crs Xln Dol 30% ± Wh, Gangue w/ Replacement		10481	201	207	6		3.61
							Zebra Type Lo Sed Br, Crs Grn Matrix Dis, Bnd Zns 100%							
							Core Recovery Est 5-5½% Zn							
207	212	5'	5			Dl	Crs Xln Dl, Lo Salt, Popper Texture			Weighted		Average		
212	294	82	54				F, M Grn Dl Broken Ground w/ Lo Openings							
							221-222			188	207	19' @ 3.10% Zn		
							230-238							
							Ce @ 239, 242 Sgs 253, 259 Wh, Ce Silicif 263, 269	6" Py 278						
					T Bd		F, Xln Dl 284-289							
294	314	20	20	Olr	294-297		F, Dl w/ Ra Sgs @ base 294-297 Peb Con w/ Sgs 298 Abu							
					O Sgs 298		Sgs 303 Sgs 309							
	Bottom 314													

THE NEW JERSEY ZINC CO.

LOCATION: Copper Ridge Belt, Sector II, Little War Creek Area

PROPERTY: Lewis Turnmire

SECTION: B-1467, B-1415 long, C-1449

HOLE NO.: LW-71

ELEVATION: 1612.67

STARTED: 11/1/58 BOTTOMED: 11/8/58 LOG BY: ADH COORDS: 746,232.71N; 794,750.50E

SHED NO.: DISCARDED: BRG.: INCL.:

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO.	FROM	TO	DIST	Core Recov
0	120	120	—			EC	Collar with 4x						
120	184	64	53	OK		DI	Sys below Fi Strat 122" Ce Nods in Fi Lt Gy Strat 141-143 Ra Crs Sys 145 Ce Nods to Fi Lt Gy Strat 152-6"						
					LP 164		Grn Sh 164; Gy M Grnd Wet 164-167 Open 174-177						
184	284	100	52	OK	TR 189	DI	4" Grn Sh 184 Cavity 184-185 Sys, Grn Sh 192 (A) Fi Bu DI B" 198 Grn Sh 208 Open 230-235, 250-255 Ce, Bnd DI 265-270 Ox 279-280			284	310	26'	2.2
284	310	26	26	Min	Est 1%	Min	C xln w/ Abu Sm Frags, Reef Debris, Lo Algal Zn, Wk dis. Zn S w/ Lo St Bnd Zn 1/2" 309-310 Ox						1% Est
310	319	9	6			Ox In DI	Cavity 314-316						
319	354	35	15			M DI	M Gy M Grain DI Fi DI 340-346, 350-354						
							R & S Bds 100% Dolomite						
							Bottom 354						

THE NEW JERSEY ZINC CO.

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area
PROPERTY Lewis Turnmire

Section B-1415 Long. HOLE NO. LW-72

STARTED 11/11/58 BOTTOMED 11/22/58 LOG BY EWR-WJC
SHED NO. DISCARDED

ELEVATION 1609.02
COORDS. Z46,237.03 N 794,653.16E
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	EM	MKRS.	ROCK	REMARKS	MINERALIZATION
0	106	106	—			RC	BX-AX 120 Open 108-111, 124-127, 137-140, 300-304 307-312	Est 6% Py
106	155	49	25	OK	TR		Sgs, Sh 145 Fi Dl 198-203	Sh Py Min 224
155	286	131	88		155 E 198-203 T Bd		Fa Mylo in Fi Dl 200 Fi Dl Frags in Br, DK Crs X'ln Dl Mtx w/ Sc Min in Mtx 270-300 Abu Bl Sh in Br 293-300 Sgs in Ce Br "A" MKr 169-170 2" Bu Dl over Sed Br (B") 179 R Bd with Abu Gangue Dol App Dip 34° @ 220, 36° @ 202 Fi Dl w/ Ce Nods 286-292	22% Sc Br Spin Crs X'ln Dl Frags 288-292
286	340	56	23	OK	286-292 0" Bd 297		Og Ce 297 (Zero Bd) Cavity 300-304, 305-307, 308-315 Ax-Ex 312 Cavity 313-320,	
							R & S Bds 100% Dl Bottom 340	

ANALYSES

SMPL. NO	FROM	TO	Dist	Core Recover	% Zn
10349	271	274	3'		1.10
10348	274	279	5'		1.00
10347	279	283	4'		0.78
	Weighted Average				
	271	283	12'		0.95
10346	292	296	4'		1.65
10345	296	300	4'		0.50
	Weighted Average				
	292	300	8'		1.07
	271	283	12'		0.95

THE NEW JERSEY ZINC CO.

LOCATION: Copper Ridge Belt, Sector II, Little War Creek Area

PROPERTY: W.M. Brewer

SECTION B-1415 C-1431 Long. HOLE NO. LW-23

ELEVATION: 1625.81

STARTED: 11/29/58 BOTTOMED: 11/29/58 LOG BY: WJC

COORDS: 746,236.15 N 794,848.40 E

SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO	FROM	TO	DIST.	Core Recover	
0	110	110	—		TR	RC	Bx-Ax-150							
110	183	73	60	OK	183?		Open 113 F.Dl w/Ce Nods 139-143 Open 143-144 Pass TR-164	Tr Sp 139						
183	273	90	72			Dl	Sys. Grn Sh 190 (A?) F.Dl 224-233 (E?)							
273	280	7	2	Min	Est ½%	Min.				273	280	7'	2'	½% Zn Est
280	318	38	18		E 233									
318	350	32	13	O/V		Dl	St Br 265-267 (Dl, Ce Br) Open 303-305, 306-308 F.Grn Dl w/Ce 318-325 Sys 332							
							Bottom 350 R&S Beds 100% Dl							

THE NEW JERSEY ZINC CO.

SECTION B-1407, C-1449X, C-1431

HOLE NO. LW-74

LOCATION: Copper Ridge Belt, Sector II, Little War Creek Area

ELEVATION: 1605.75

STARTED: 12-1-58 BOTTOMED: 12-9-58 LOG BY: EWR COORDS: 746,032.50N 794,746.21E

PROPERTY: Lewis Turnmire SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST	CORE	FM	MKRS	ROCK	REMARKS	MINERALIZATION
0	99	99	–			RC	BX-AX-132 Open 102-106, 112-115, 117-118	
99	215	116	101	Oma	CeMx	Dl	CeMx Coin w/Sgs, Ce Pebs 129-131 Abu Sgs 168-169 DK Shy Dl	
					215		190-201 Sc Abu Bnd Sgs 213-215	Pi to Gunque Dol
215	371	156	98	DK		Dl	Grn Sh 217 Bu Dol w/ Ce Nod 221-226 CoCe above 2'	351-353, 358-359,
							Abu Bnd Sgs 229-230 CoCe, Bl Sh 233 DK Shy Dl (Lo Ox)	365
					11-255		233-239 Ce Nod Zo 245-258 Strat w/ Ru Sgs 258-261	
					260		Lo Frng 268-301 Abu Sc Sgs → Ce Mx Ss 284-285	Pi 390-391, 418
					TR			
371	474	103	93		387	Dl	Sed Br 391-400 Sgs, Grn Sh 403-404	Sc Tr Sp 492-504
474	492	18	18	Ore	E	Ore		Sf Pi 498, 507
492	519	27	27		424-426		Sgs 513	516-518 (5%)
519	540	21	20	Clv	TBd			Sf Pi 525-526
					519-523		R & S Beds 100% Dl	
							Bottom 540	483-487 Lo Dk
								Calcite Lines, Green Calcite

ANALYSES

SMPL NO.	FROM	TO	DIST	% Zn	Recov
10484	474	478	4'	4.60	4
10485	478	483	5'	7.22	5
10486	483	487	4'	11.18	4
10487	487	492	5'	14.52	5
	Weighted Average				
	474	492	18'	9.55% Zn	

THE NEW JERSEY ZINC CO.

SECTION B-1707
C-1447 X

HOLE NO. L-W-75

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area

ELEVATION 1599.51

STARTED 12-11-58 BOTTOMED 12-24-58 LOG BY EWR COORDS. 775,932.52N; 794,743.34E

PROPERTY Lewis Tunmire SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMP. NO.	FROM	TO	DIST	Recovery	% Zn
0	110	110	—			RC	BX-AX 130 Open 231-233							
110	304	194	180	Oma		DI	Sc Bnd Sgs 122-123 Ce 128 Ce Br 132 Cot Rk 137-139 Ra Sgs w/wh Ce Frags 142 Abu Sgs w/Pebs 150 Abu Bnd Sgs 157 Abu Bnd Sgs 161-163 Ce 163 Ra Bnd Sgs w/Ce Pebs 206 Abu Sc Sgs w/ large DI Pebs in Crs Rex No DI 222-224 Frd Ce & DI 240-243 Abu Sc Sgs 292 Sgs, Crs Ce Pebs CeMtx Ss 304	Sh Sp w/Cd 164 WK P 285-287 407		363	369	6	4	2.37-3.5
					CeMtx					369	385	16	12	1/2%-5%
304	448	144	104	OK	288	DI	Ce Nod Zo 343-355 Sc Bnd Sgs 350-351 Fa? 405 Grn Sh 422 Crs Sgs 435	Tr Sp 447	10489	373	517	4	4	3.70
					TR				10490	517	520	3	3	0.10
448	513	65	63		439	DI	Grn Sh 450 F DI w/Ce Nods 470-471		10491	520	525	5	5	15.10
513	529	16	16			Ore		Sh Sp 502 Tr Sp 506 510	10492	525	529	4	4	1.13
529	560	31	26			DI	Sgs 530 F DI w/Ce Nods 574-590							
560	562	2	2			MIN		P 515-534	Weighted Average					
562	603	41	37			DI		Tr Sp 542, 544, 549		513	529	16	16	5.96
							Bottom 603	1" Sp 553	10493	560	562	2	2	2.16
							R&S Beds 100% Dolomite	P 591						

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area
PROPERTY Lewis Tunmire

THE NEW JERSEY ZINC CO.

SECTION B-1407 B-1453 X C-1444 X C-1451 B-1434

HOLE NO. LW-76

ELEVATION 1582.88

STARTED 12/29/58 BOTTOMED 1/14/59 LOG BY EWR, ADH

COORDS. 745,734.30N; 794,742.82E

SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	100					RC	BX-AX 120				
100	466	366	342	Oma		Dl	Abu Bnd Sgs 112 Wh Ce 150 Sc Bnd Sgs 158-159 Ce & Sh Sed Br w/Sgs 159-160 Sgs 162 Ce Nod Zo 174-179 Oo Ce 180 Sgs in Dl 180 Sc Sgs 192, Vy Abu Sc Bnd Sgs 230-232 Wh Ce Nod 232 Vy Abu Sgs → Ce Mtx 244-245 Bl Sh 245 Abu Sgs in Rex In 248-251 Crs Dl Frags 248-249 Wh Silic Dl 252 Abu Sc Sgs 264 Abu Bnd Sgs 289 Irreg Wh Ce 307 Sc Lo Abu Sgs 318-320 Bl Ce, Lo Sgs 325-327 Ce 330-331, 337-338 Ra Sgs 358 Abu Sc & Bnd Sgs in Strat 362-364 Frag 387 Crs Sgs & Bl Ce 410-411 Sgs & Ce Mtx Ss 431 Ce Mtx Ss 465-466	Shi Sp & Py 367 Sp in Ce (est 1%) 553-557 Est 3% 560-561 Lo Shi Sp (est ½%) 570-590 Est ½% Zn 603-612 Tr Py 139-141 Est ½-1% 764-768				
					60' Sg 392 45 Cg 411 Ce Mtx 466						
466	596	130	110	OK		Dl	Sc Bnd Sgs 476 ½" Bn Sgs 489 Crs Sc-Abu Sgs 509-510 Str Ble 517-524 Abu Sgs 524-525 Oo Ce 529 Wk Ble 539-596 Ra Sc Sgs in Dist Strat 560-561 Ce Nod Zo 582-590				
					Brn Oo 529						
					U 255 561						
596	603	7	7	O		Dl	2½% Zn Est in frs in Dol.				
603	612	9	8	Min		Dl	Ra Sc Sgs in Dist Strat 607-608				
612	657	45	26	OK	TR 657						
657	800	143	129		"A" 675 "B" 679 "E" 706		Sgs 675 Sed Br w/Ce 727-749				
800	805	5	5	Olv	T Bd 800-805						
805 (Bottom)											

LOCATION Little War Creek Area Sector II Copper Ridge Belt

PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

Section C-1424 Long. B-1433 X C-1450

STARTED 1/15/59 BOTTOMED 1/23/59 LOG BY CWR

SHED NO. DISCARDED

HOLE NO. LW-77

ELEVATION 1615.94

COORDS. 746,099.42N 794,350.87E

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	83					RC	BX-AX 100 Open 102-105				
83	124			Oma	CeMtx 124		Lt Bu Strat 106-108 DK Ry Dl 111-123 CeMtx Ss 124	Tr Sp 388			
124	286			OK	TR 286± E 334-336	Dl	CeBr 307-309 Sgs in Crs Xln 310	Tr Sp 400-420			
286	400	114		OK		Dl					
400	420	20		Min		Dl	Sc Tr Fily Dis Sp in Crs Xln reef Br Est ½% Zn				
420	430	10		OK							
430	446	16		Olu	T Bd 430-438						
446	Bottom										

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

Section C-1424 Long.

STARTED 1/24/59 BOTTOMED 1/31/59 LOG BY EWR
SHED NO. _____ DISCARDED _____

HOLE NO. LW-78
ELEVATION 1656.75
COORDS. 746,054.35 793,959.50E
BRG. _____ INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	92					RC	BX-AX 166 Reamed to 240 BX core (2') 233-240				
							Poor Core Recovery to 240				
92	341	249	136	Oma & Ok	TR	DI	Ce Mtx Peb Cg 126 Ce Mtx Ss 144, 181 Dist Strat 245-247				
					341		Ce Mtx 248	Shi Sp 309			
341	498	157	157	Ok			Sqs & Grn Sh 475 Hvy Ce 476-482	Dis Spin DK Re Xln			
					"E"			355-356			
					428-429			Shi Spin Br 360			
498	502	4	4	Olv	TBd			Sc Dis Sp 367-370			
					498-502			Est 1/2 % Zn			
502	Bottom							Fi Dis Sp in Sc Tr			
								& Shis 376-437			

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY D. Dalton

THE NEW JERSEY ZINC CO.

Section C-1424 Long.

STARTED 2/3/59 BOTTOMED 2/10/59 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. LW-79
ELEVATION 1635.20
COORDS. 746,002.03N 793,614.92
BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO		
0	18					RC	NX-BX47 BX-AX135						
18	131	113	12			RC &							
						Dl/Ce boulders	8' Fi Dl Core 18-69, 2' Wh Ce core 69-86, 1' Fi Dl w/Abu Sgs	Tr Sp 170					
					CeMtx		& Ce Mtx Core 86-95 1' Ce Br Core 95-108, 108-131 open			384	388	Est	½-1% Zn
131	179	48	34	Oma	179		Frng 142-150 Dl Br or Cg 145 Thn Ce Mtx w/Grn Sh 221 Frags	Shi 366-367					
179	347			OK	Brn Oo		Ce Mtx 224 Oo Ce 229 Ra Sgs 249 Sgs in Sed Br 260	370 372					
					229		Abu Sc-Bnd Sgs 271-272 Bnd Sgs 284 Hvy Ce 290-292	Tr Sp 384-388					
					TR		Abu Sgs above Bl Sh 307-309 Dx Dl 330-335	Shi 391-392, 395					
					347			Sc Wk Tr 402-417					
347	452	105	99	OK		Dl		422-432					
								442-458					
452	463	11	11			Ls							
463	500	37	37			Dl	Ra Sgs 468 Bnd Sgs 489 Ce Nod Zo 472-476						
500	Bottom												
							R & S beds mostly Sed Br						

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt

PROPERTY ~~Leon~~ Brewer

THE NEW JERSEY ZINC CO.

Section C-1424 C-1431 B-1494 Long.

STARTED 2/12/59 BOTTOMED 2/19/59 LOG BY EWR

SHED NO. DISCARDED

HOLE NO. LW-80

ELEVATION 1671.17

COORDS. 746,147.63 N ; 795,163.91

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	62	62	–			RC	BX-AX 150				
62	131	69	10				RC & Dl boulders				
131	320	189	172			Dl	Ra Bnd Sgs 153 Sc Sgs 176 Bnd Sgs 180 Sgs & Irreg Grn Sh 181				
					Ce Mtx 201		Ra Ce Mtx Ss w/Abu Grn Sh in Channel fill 189-190 Abu Sc Sgs 200-201				
							Ce Br 206-208 Frd Fi Bu Dl 208-211 Abu Sgs 211-212 Lo Sed Br (fill				
							on Eros. Surface?) 216-227, 230-236, 243-246, 254-257 Wk Frng 232-				
							233, 236-238 Ce Nd Zo 235-239 Ra Sgs 266 Hry Ce w/Lt Grn Sh 289				
320	332	12	12		TR	Min	Est 1% Zn · Mylon 331-332	Str Shi Sp 320-322 Sc			
332	358	26	24		358	Dl	Vuggy Ox Dl, Mylon w/Ox Py 332-337	Trs Sp 324-331 Str			
358	507	149	138			Dl	Fa, Mylon 366 Sgs, Grn Sh 369 Hry Silic 409-424	Shi Sp 331-332			
							Frng 455	Trs Sp 356, 387 Shi			
507	524	17	17		T-Bed 507-514	Dl		Sp 440			
								Abu Shw Py 432-436			
								Sc Trs Sp 10 Crs Rex In			
			Bottom		524		R & S Beds 100% Dl	Dl 458-465			
								St Py - 495			

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area
PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

Section B-1435 Long. C-1431

HOLE NO. LW-81

SECT. NO. B-1433 X ELEVATION 1587.22

STARTED 2/20/59 BOTTOMED 3/2/59 LOG BY EWR COORDS. 745,824.61 N 794,648.79 E

SHED NO DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL NO.	FROM	TO			BLE
0	100	100	-			RC	Bx-Ax 114 open 107-110								
100	362	262	225	Oma		Dl	Vy Abu Sgs w/Ce Mtx 129-130 Wh Ce Nds 133 Vy Abu Sgs w/Ce Chips & Pebs 138-140 Abu Sgs w/Ce 146-150 Wh Silic 150-151 Abu Sgs in Fnd Dl 159-161 Frng 187 Hi Ang Frng & Fang 203-208 Abu Sc Bnd Sgs w/Ce Chips 217-219 Fi Bns Ce Chips 220 Blu Ce w/Oo 225-227 Grn Sh 236 Crs Sgs, Ce Pebs 257 Abu Bnd Sgs 261-264 Ra Sgs 285 Abu Sgs above blu Oo Ce 309 Crs Ce Mtx 330 Ce Mtx Sg 362		Shi Sp in Ce 264 Sc Py in Wh Dl in Frs 507-511 516, 520						
					"60 Sgs" 309										
					45 cgl 330 Ce Mtx										
362	546	184	153	OK	362 U-225 441		Sc Fi Sgs 377 Ce Mtx 396 Blu Dl w/Ce Nds 434-438 Dist Strat 438-441 Abu Sgs 441 Dist Strat 507-510 Abu Sgs Above Grn Sh 511 Grn Sh 546 Low Fa 523		Sh.s Py 648-650 Tr Sp 707						
					TR										
546	692	146	127	OK	546 E 588-595		Abu Sgs & Grn Sh 563 Abu Crs Bnd Sgs w/Ce & Grn Sh 569 Sgs & Grn Sh 578 Grn Sh 595 Abu Sed Br & Frs w/wh Gangue Dl 600-692		Sh Py 733-734 739-740						
692	695	3	3			Ls	Sdy Ls 692-693								
695	715	20	20		T Bd	Dl	Sc Sgs 704 (J?)								
715	740	25	25	OK	715-721	Dl	Fi Dl w/Ce Nds Sgs & Sh @ base								
			Bottom 740 Rf S Bds		98% Dolomite										

THE NEW JERSEY ZINC CO.

LOCATION: Copper Ridge Belt, Sector II, Little War Creek Area
PROPERTY: Lewis Turnmire

Section: B-1435 Long. B-1434 C-1431

HOLE NO. LW-82
ELEVATION 1592.63
COORDS. 745,834.77 N; 794,852.00 E
BRG. _____ INCL. _____

STARTED 3-3-59 BOTTOMED 3-12-59 LOG BY EWR
SHED NO. _____ DISCARDED _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	94	94	–			RC	Bx – Ax 101	
94	358	264	224	Oma		Dl	Folded Grn Sh 102-103 Frng & Br 116 Bnd Sgs → Ce Mtx → Bnd	
							Sgs 125-127 Abu Sgs w/Ce Chips 134 Abu Sgs → Ce Mtx → Ce w/	
					"60"		Sgs 137-139 Abu Sgs in Rex In 142-146 Ce & Rk - 146-147 Sc - Bnd	
					305		Fi Sgs 218-219 Lo Frng 170-183 Blu Ce 225 Ce Nd Zo 226-230 Bnd	
					"45"		Sgs 261-262 Ra Sgs 282 Sgs & Ce Pebs Cg 305 Ce Mtx w/Ce Pebs 322-	
					323		323 Ce Mtx Ss 358	
					Ce Mtx			
358	547	189	178	OK	358	Dl	Ra Sgs 379 Abu Sc Fi Sgs 398-399 wh Ce Chips & Ra Sgs 405	Tr Py 392, 405
					U-255		Abu Bnd Sgs → Ce Mtx 413-415 Ce Nod Zo 438-443 Dist Strat	Tr Sp 500
					446		w/Sgs @ Bs 443-446 Grn Sh 457 Abu Bnd Sgs 466-467 Ce	Trs Py 497-504,
					LP		Nd Zo 468-474 Sc Sgs 487 Ra Sgs 542	525
					542			Shi Sp 561 Py 565
547	705	158	147	OK	TR	Dl	Grn Shy Dl 673-680	Tr Sp 575
					547			
705	731	26	26	OK	T Bed	Dl	Silic Dl 712-717	590-595 - ½% Est
					705-712			Zn
								Sc Py 582-607
		Bottom		731				Sc Trs Sp 608, 612-
		R&S	Beds	100%				616, 632, 661-662
								Py 642
								Py 720, 725, 729

ANALYSES SMPL. NO.	FROM	TO			
	590	595	Est @ 3% Zn		

LOCATION Copper Ridge Belt
Sector II
Little War Creek
PROPERTY W.M. Brewer

THE NEW JERSEY ZINC CO.

STARTED 3-13-59 BOTTOMED 3-21-59 LOG BY EWR
SHED NO. _____ DISCARDED _____

HOLE NO. LW-83
ELEVATION 1616.62
COORDS. 745,934.81 N; 794,950.60 E
BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			Dip
0	19	19	–			RC	Nx-Bx 21 Bx-Ax 40							
19	257	238	226	Oma		Dl	CeMtxSs 52 Abu Sc Sgs, Ce, CeMtxSs 58-62 Vy Abu Sgs w/Ce							48°
					"60"		Chips 70-72 Wh. Ce 72-73 2" Mylon 128 Sc-Bnd Sgs 144-145							@ 275
					215		Hw Ce 149 Blu Ce 155 Cot Rx 161-163 Bnd Sgs 180 Abu Sc-Bnd	Str Sc Py 485-494						
					"45"		Sgs 185-189 Ra Sgs 207 Sgs, Ce w/Dl Pebs 215 Fa (62°) 222							
					235		Frng 222-223 CeMtx, Sgs, Ce 235 Abu Sc Sgs 256-257	Sctrs, Shis Sp						
					CeMtx			485-494 (Est @		477	480	Est @	3% Zn	
257	476	218	175		257	Dl	Frng 290-295 CeMtxSs 298-299 3" Mylon 321 Vy Abu Sc Sgs 349-	1/2%)						
					4-255-362		350 Abu Bnd Sgs w/Ce Pebs 360-362 Lo Frng 403-412 Sc-							
					TR		Bnd Sgs 419-421 Grn Sh 426 Vert Fa (1/4" Disp.) 512-515	TrSp 502, 523						
476	640	164	153		476		Abu Sgs 531 Fi Dl w/ Irreg. wh. Ce Nods 583-585	Py 594, 604, 613						
		Bottom		640										

LOCATION Copper Ridge Belt
Sector II
Little War Creek Area
PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

Section B-1435 Long.

HOLE NO. LW-84

ELEVATION 1577.10

STARTED 3/24/59 BOTTOMED 4/1/59 LOG BY EWR

COORDS. 745,821.33N; 794,548.46

SHED NO. DISCARDED

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO	FROM	TO
0	84	84	–			RC	Bx-Ax-96				
84	352	268	200	Oma		Dl	Bnd Sgs, Ce Mtx 120-122 Ce Chips, Sgs 129-130 Abu Sgs	Sc Trs Sp in Brd			
					60 Mkr		131-132 Abu Sc Sgs, Ce 140-143 Abu Sc-Bnd Sgs 215-217 Blu	F, Dl 234-240			
					290		Ce 221-222 Ce Nod Zo 222-227 Cot Rk 232-234 Abu Bnd Sgs				
					45 Mkr		255-257 Crs Sgs, Ce Chips 261 Abu Sgs, Dl Pebs 290 Abu Crs Sgs	Sc Shi Sp, OxZn			
					306		Ce Pebs, Ce 306 DK Dl w/Shy Pts 341-351 Ce Mtx Ss 352	262-266			
					Ce Mtx						
352	558	206	184	OK	352	Dl	Sgs 360, 374 Abu Sc-Bnd Fi Sgs 392, 393 Whi Irreg Ce				
					U-255		Br w/Sgs 400-402 Sgs in Strat 407 Sgs 424 Ce Nod Zo				
					440		430-436 Dist Strat w/Sgs 436-440 Ce Nod Zo 458-				
					LP		468 OoCe, Whi Ce Frag Cgl 467-468 Ce, Crs Ce Frag Br 489				
					543		Abu Sgs 515 Grn Shy Dl 543 Brn Mot 555-558 Sgs, Grn				
					TR		Sh 559				
558	724	164	153	OK	558		Sgs 563 4" Bu Dl above Crs Sgs, Ce 567 Ce Nod Zo 597-				
					"A"		603 Grn Sh 603 Strat Dl w/Dip <5° 670				
					563						
					"B"						
					567						
					"E"						
					597-						
					603						
							Bottom 724				

LOCATION Copper Ridge Belt
Sector II
Little War Creek
PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

STARTED 4/2/59 BOTTOMED 4/13/59 LOG BY EWR
SHED NO. _____ DISCARDED _____

HOLE NO. LW-85
ELEVATION 1534.19
COORDS. 745,946.14N; 794,348.99
BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO	RECOV	% Zn
0	90	90	—			RC	Bx-Ax 101						
90	265	175	115	Oma	"45"	DI	Open 148-156		10252	515	519	4/4	1.30
					216		Bnd Sgs 114-116 Cot Rk 131-133 Abu ox, Ce 204-		253	519	523	4/4	7.08
					CeMtx		219 Hily Frd 237 Oo Ce 204 Ce Cgl 216						
265	438	173	162	OK	265	DI	Sgs 304 Sc Sgs 332 Cc Nod Zn 349-356 Ce, Ce		254	541	546	5/5	3.23
							Frags 374, 376 Sgs 380 Sc Sgs in Strat 395 8" Gra	Py 400	255	546	551	4/5	1.45
					"-115"		Sh 396	Tr Sp 486, 506					
					376			WK Trs Sp 523-		Weighted Averages			
					4-255			533					
					395			Trs Sp 551-557		515	523	8' of 4.19% Zn	
					LP								
					427					541	551	10' of 2.34% Zn	
					TR								
438	515	77	69	OK	438	DI							
					"A"								
					451		Sgs 451						
					"B"		Bu DI 456						
					456								
515	523	8	8			Min							
523	541	18	15	OK		DI							
541	551	10	9			Min							
551	610	59	58			DI	Sgs 581 Sc WhCe 588-610						
							Bottom 610						
							R&S Bds 100% DI						

LOCATION Sector II
Copper Ridge Belt
Little War Crk. Area
PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

SECT. B-1435 Long. C-1450

HOLE NO. LW-86

ELEVATION 1574.58

STARTED 4/14/54 BOTTOMED 4/23/54 LOG BY EWR.

SHED NO. DISCARDED

COORDS. 745,834.51 N; 794,348.43

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	51	51	—			RC	Bx-Ax 84 OPEN 107-112				
51	364	313	274	Oma		DI	Abu Sgs, CeMtxSs 102-103 Vy Abu Sgs w/Ce Nods 121-124 Abu Bnd Sgs 191-192 Abu Bnd Sc Sgs w/ LoCe Pebs 234-240 Red-Black-White Ce 240 Sgs 262 Sgs w/ Bu DI Peb 266, Blu Oo Ce 281 Peb Cgl 294-295 Abu Sgs w/CeMtx 327-328 CeMtx 335	Shi in Ce 240			
					CeMtx		CeMtx 364				
364	500	136	122	OK	364	DI					
					U-255		Sgs 378, 433, 441	SiTrSp 581-590, 596-607			
					455			ShiSp 619-620			
					LP						
					484						
					TR						
500	651	151	148	OK	500	DI	Sgs, GrnSh 506-508				
					A						
					506						
					B						
					515						
					E						
					537-546						
					TBd						
651	660	9'	6		651-660	DI					
				Bottom	660						
				R&S Beds	100%	DI					

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY Lewis Turnmire

THE NEW JERSEY ZINC CO.

SECT - B-1407 → obsolete
C-1444 X

HOLE NO. LW-87

STARTED 4/24/59 BOTTOMED 5/7/59 LOG BY EWR
SHED NO. DISCARDED

ELEVATION 1572.52
COORDS. 745,528.69N 794,757.64E
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	40					RC.	BX-AX 65 Open 98-102, 139-150	Bleaching between Ce Mtx & K4 - 32'			
40	595	555	464	Oma	M7 393 M8 472 Mg+27 537 Mg+38 550 M10 568	D1	1' Strat w/Sgs 161-162 2" Frng 207 3' Bu D1, Brd @ Top 253-256 Ce Mtx Ss 310 Sgs 320 Ce Mtx above Bu D1 324 Bu D1 w/Sgs 325-326 Abu Crs Sgs & Ce Mtx 384-385 [(M7 M8) 393-416 Abu Sgs, Ce Mtx, Sh & Ce Sc throughout] 35° Fa 431 Abu Sgs & Ce Mtx 464-465 Sc Sgs 455 Hvy Blu Ce 472-474 2' Wh Ce 482-484 Bnd Sgs 495 Bnd Sgs → Ce Mtx 507-509 Hvy Ce 533 Sgs w/large D1 Pebs 537 Crs Sgs w/Ce & Ce Mtx 550-551 Sgs above 1' Ce Mtx 568-569 Fa 562				
595	763	168	154	OK	Ce Mtx 595 K1-629 K2 643 No Brn lo LP-753 TR-763	D1	Abu Sgs @ base 2' Strat 629 Abu Sgs in Strat 643 Ra Sgs 665-666 D1 Pebs & Ce 671 Ce Nod Zo 660-663 Bnd Sgs 685 Ce Nod Zo 685-691 Hvy Ce 705-706 Bn Sgs 709 Sgs @ base Dist Strat 717				
763	897	134	114		"E" 821-827	D1	Sgs & Sh 768, Sgs 884 Crs Sgs @ base F. D1 901				
897	932	35	25		T Bed 897-901	D1					
932	Bottom										

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY W. M. Brewer

THE NEW JERSEY ZINC CO.

Section C-1424 Long.

HOLE NO. LW-88

ELEVATION 1732.35'

STARTED 5/8/59 BOTTOMED 5/15/59 LOG BY EWR

SHED NO. DISCARDED

COORDS. 746,184.47N 795,554.56E

BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	116					RC	BX: AX 135 Open 150-152, 194-196				
116	181	65	50	Oma	CeMtx 181		CeMtx Ss 127 Crs CeMtx & Ce 143 1' CeMtx 180-181				
181	371	190	159	Ok	TR? 371		Ra Sgs 230 Abu Crs Sgs 236 Brn Do Ce 240 Sc Sgs in Dist Strat 262-265 Abu Sgs in Bu Dl 284 Frag 313-317 Hi Ang Fa 316 Sgs 332 Ra Sgs above Grn Sh 361-363				
371	540	169	112				R & S Bds 95+% Sed Br W/Lo Abu Wh Gangue Dol				
540 (Bottom)											

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY D. Dalton

THE NEW JERSEY ZINC CO.

Section B-1466 X

HOLE NO. LW-89

ELEVATION 1674.93

STARTED 9/1/59 BOTTOMED 9/10/59 LOG BY EWR

COORDS. 745,829.69N 792,746.61E

SHED NO. DISCARDED

BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO	% Zn	
0	130					RC	BX-AX 160 Open 132-137, 182-183, 299-301						
								Shis 320-321					
130	320	190	162	OK		DI	Ce 196 Abu Sgs in Bu Strat 223-226 DK Strat	WK Trs 323-					
					K-2		237-239 Abu Hvy Ce 266-268	327, 331-333		320	333	2%	Est
					190			Shi 339, 342-		320	326	0.90	
					BrnOo			345 Trs Sp		326	330	0.85	
					196			348					
320	496	176	175			DI	Sgs 347	Py 347-349					
					TR?								
					320			WK Trs 440-455		440	455	1/4%	Est
					TBd?				11454	339	344	0.93%	
					478-								
					482				11455	344	349	0.39%	
496	(Bottom)								11456	349	355	0.82%	
										Weighted	Average		
										339	355	16' of	0.69% Zn

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY D. Dalton

THE NEW JERSEY ZINC CO.

Section B-1466 X

STARTED 9/14/59 BOTTOMED 9/29/59 LOG BY EWR
SHED NO. _____ DISCARDED _____

HOLE NO. LW-90
ELEVATION 1676.46
COORDS. 745,462.15N 793,094.12E
BRG. _____ INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BIE
0	57					RC	BX-AX 117 Open 58-59, 62-63, 79-80 82-83, 85-87, 96-98							
57	525	468	387	Oma		Dl	Tr Irreg Ce Mtx 78 DK Dl w/Bu Mot 87-95 Sc-Bnd Sgs 215 Hvy Ce 221-222 Sgs & Ce Mtx 247 Abu Sgs in Bu Dl 262-263 Abu Ce Nods in DK Dl w/Bu Mots 270-277 Sgs 297 Open 332-335, 340-342 Sgs & Grn Sh 339-340 Open 370-375, 376-378, 401-403 Abu Sgs 444 Ce Peb Cg 486 Grn Sh 496 Peb Cg w/Ce & Dl 496-499 Wh Ce 499 Fa 506 Ce Mtx 525	Tr Sp 727 Shis Sp 763-765 Breccia		763	765	4% Est		Mod-st 629-666
					CeMtx 525									
525	684	159	154	OK		Dl	Sc Sgs 532-533 Abu Sgs 570 Brn Do Ce 575 Fa 594-595 Brn Do Ce 611 Sgs in Dist Strat 632 Grn Sh 643	Fa Br 707-709						
					K2-570 Brn Oo 575			Br w/Ce & DK Carbonaceous Dl Mtx 763-780						
					LP-669 TR684									
684	780	96	93	OK		Dl								
780	792	12	12			Ls								
792	796	4	4			Dl								
796	802	6	6			Ls								
802	872	70	59			Dl								
872	Bottom													

LOCATION Little War Creek Area Sector II Copper Ridge Belt

PROPERTY John Barnard

THE NEW JERSEY ZINC CO.

STARTED 9/30/59 BOTTOMED 10/9/59 LOG BY ADH

SHED NO. DISCARDED None

HOLE NO. LW-91

ELEVATION 1678.52

COORDS 745,610.22 791,982.28E

BRG INCL. -90°

DEPTH FROM	DEPTH TO	DIST	CORE	FM.	MKRS	ROCK	REMARKS		MINERALIZATION	ANALYSES SMP. NO.	FROM	TO
0	56					RC	BX-AX 130 Open 67-67, 78-86, 90-96, 97-112 Lost Hole @ 96, New Hole @ 80'					
56	130			Oma		DI	L+MGy Fi DI					
130	143	13	13	Oma	CeMtx 143	DI	Ce Mtx Sgs 143'					
143	323	180	169	OK	Kz 197 Brn Do 201 LP? 311 TR? 323 or 380		Sc Sgs 151-153 BuMot Zo 170-173 Spsc Sgs in strat 183-184 WKWh Do 186-210 Sgs w/CeNods 197 BleMot 210-212 CeNods 213-215 Dist strat 215-219 Blu Ce 219 Open 219-220 CeNods 230-239 Sgs 233 BluCeNod 259-262 1/2" Sgs 262 Sc Sgs 274 Sgs over 6" Blu gn Sh 281 CeNods 292-293 2" Gn Sh 311 WKWh Gangue DI 315-330	Sed Br 197-201 Lo Sed Br 332-400 Sed Br 404-436	Tr Sp 218 Tr py 248 288-289 WK Gangue DI 330-392 Mod Wh Gangue DI 392-436			
323	435	112	110	OK		MDI	Ra Sg over 2" Gn Sh 330 A? Scat Sgs w/Ce & Gn Sh 332-340 Sed Br w/Crse DI Mtx Ce, & Wh Gangue 404-436					
435	458	23	22	Olv		DI	Fi DI & Lo Bl Ce Nods Sgs 444					
458	Bottom											

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt

PROPERTY John Barnard

THE NEW JERSEY ZINC CO.

HOLE NO. LW-92

ELEVATION 1631.29

STARTED 10/22/59 BOTTOMED 10/21/59 LOG BY EWR & ADH

COORDS. 745,405.77N 792,531.91E

SHED NO. DISCARDED None

BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION
0	62					RC	BX-AX ~~#~~ 67	
62	397	~~328~~ ~~33~~ 335	~~33~~ 323	Oma		DI	Cot RK 86-87, 115-117 Sc Sgs w/Grn Sh 121 Grn Sh 125 Abu Sc-Bnd Sgs 128-129 Sgs 165 Silic Brd Dl w/Ce @ base 168-170 Brd Fi Bu Dl 192 Abu Bnd Sgs 192-193 2" Wh Ce Mtx 193 Vy Abu Sgs w/Dl Frags 193-194 Wh Ce 195 Sgs & Ce 201 Vy Abu Sgs in Fi Dl 202-204 Ce Nod Zo 204-211 Abu Sgs w/Dl Pebs 212 Blu Ce & Wh Silic Dl 213-215 Abu Sgs above Grn Sh 273-275 Hvy Blu Ce 280-281 1' Ls 283-284 Sc Sgs 312 Abu Bnd Sgs 315 Ra Bnd Sgs in Strat 330-333 Abu Sc Crs Sgs in Bu Dl 340 Sc Bnd Sgs above Grn Sh 356-357 Grn Sh 365 Sgs 378 Grn Sh 385 Wh Ce Mtx @ top Bu Dl 397 Abu Sgs & Ce Mtx 448 Brn Qz Ce 452 Ce Nod Zo 466-470 Strat w/Sgs 470-472 Grn Sh 478 Ce Nod Zo 478-496 Sc-Bnd Sgs w/Th Ce Mtx 491-492 Abu Blu Ce 515-517 Crs Sgs 520 Sgs above Grn Sh 534-535 Sgs above Grn Sh 562	Tr Sp 116, 282, 283, 617
					CeMtx 397			
397	582	195	162	OK		DI		
					K_2 448			
					Brn Qz 452			
					LP 562			
582	727	145	129	OK	TR 582	DI		
727	788	61	50	OK	TBd 727-734 OSgs 741	DI	Fi Dl w/Wh Ce Nods 727-734 Abu Crs Sgs 741	
788	Bottom							

ANALYSES SMPL. NO.	FROM	TO	%Zn	
	650	651	2%	Est.
	666	671	1%	Est.
11460	676	681	3.08%	
11461	681	687	2.03%	
	Weighted Average			
	676	687	11' of 2.51% Zn	

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY J. Barnard

THE NEW JERSEY ZINC CO.

STARTED 10/23/59 BOTTOMED 11/4/59 LOG BY EWR
SHED NO. _____ DISCARDED None

HOLE NO. LW-93
ELEVATION 1582.23
COORDS. 744,953.12N 791,602.24E
BRG. _____ INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO
0	95					RC	AX-BX 140 Open 103-126, 128-134, 146-148, 151-154, 156-158, 162-166, 203-205, 238-243				
95	442	347	267	Oma		DI	Sgs 148, 156, 193 Ra Sgs & Abu Ce Frags 207-208 Sgs, Ce Mtx & Ce 224-237, Hi Ang Fa w/Mylon 255-258 DI Pe b Cg 271 Ce Mtx 282 Hi Ang Fa 280 Sgs 332 Sgs in Grn Sh 340, Sgs 342 Ce Nod Zo 344-348 Wh Ce Chip Cg 387 Wh Ce Mtx 400-401 Fa 414 Wh Ce Mtx & Sc Sgs 441-442	Tr Sp 626 Tr Py 630-632 Tr Sp 636-637 Shi Sp 677 Str Shi 690-691 Py 672, 678, 689			
442	638	196	181	Ok			Abu Sgs & Ce Nod 482 Brn Oo Ce 486 Ce Nod Zo 500-532 Ra Sc Sgs 525-527 Sgs & Grn Sh 533 Fa Zo 543-544 Abu Sgs & 6" Grn Sh 563 Ra Sgs 569 Abu Sgs & Grn Sh 573-574 Fa Zo 588-593 Sgs & Grn Sh 617 Ra Sgs 627, 631 Sgs & Grn Sh 638	Str Py 769			
					K 482						
					Brn Oo 486						
					LP 617						
					TR 638			Breccia			
638	800	162	145					Ce Br w/Rk Mtx 562 Br w/Grn Sh & Ce 649-652 Rk Mtx Br 681-793			
800	(Bottom)										

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY M.C. Tummire

THE NEW JERSEY ZINC CO.

Section C-1366 X

STARTED 11/10/59 BOTTOMED 12/3/59 LOG BY EWR
SHED NO. DISCARDED

HOLE NO. LW-94
ELEVATION 1597.69
COORDS. 745,830.72 N 799,770.33 E
BRG. N 34-12 W INCL. -50°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	Breccia ~~MINERALIZATION~~	SMPL. NO.	ANALYSES FROM	TO	EST % ZN
No Overburden							NX-BX 10 BX-AX20 Open 55-58, 61-62, 65-86 BX-86-90 BX-AX-90 Open 120-121			Tr Sp 509-512		
0	482	482	423	Oma		DI	Bu DI, Brd @ Top 31-35 CeNodZo 33-38, Sgs 110 Red Strat DI			512	516	8
					"60"		134-137, Red Mot 144-146 Red Strat 146-154 Bdng Pl Fa? 163	Br. ¢wh Dol		516	524	4
					435		Hi Ang Frng 197-198 Strat w/CeMtx 198-199 70° Fa 214-215 Ra Sgs	502-627		524	530	5
					"45"		above 2' Strat 220-222 1' Wh Ce 249-250 Abu Bnd-Sc Sgs →			530	535	6
					448		CeMtx 260-261 Sc Sgs @ base 1' Strat 273 Abu Sgs ~~[illegible]~~	Rk MTx Br		535	540	10
					CeMtx		in MGy MX/In DI → CeMtx Ce Pebb Cg 281-283 Ra Sc Sgs → Th Ce Mtx	633-684 Lo Dol.		540	545	2
					482		287-288 Ce Br 288 M-DK Gy DI w/Bu Mots ~~289~~ 298-308 Abu Sgs	671-698		545	550	1
							w/Ce Mtx 311-312 Grn Sh 320 Sc Sgs → Ce Mtx 320-322 Ce Nod Zo 322-			550	554	4-5
							325 Abu Sgs ± Ce 326-329 Sgs in DK Mot DI 335 Sgs in Dist Bu DI			554	559	1½
							377-378 Bnd Sgs ± Ce 385-387 Wh Oo Ce 389 Abu Bnd-Sc Sgs 409-			559	565	9
							410 Sgs w/Wh Ce Frags 413 Sgs ± DI Peb Cg 435 Abu Sgs w/Ce Peb			565	570	12
							± Ce 448-449 Ce Mtx ± Sgs 482; Abu Sgs w/DI Pebs 488-489; Fa			570	576	6
							491-492; Abu Sgs 491-493; Sgs 501-502			576	580	5
482	633			Ok		DI				580	584	½
										584	588	4
										588	596	2½
				TR-633						596	601	½
633	698	65	65							601	606	5
							TRO-PARI Survey 11/30/59			606	610	3-3½
698	713	15	15			LS				610	614	4-5
							Depth 500' GEOLOGIST: E. W. RENSHAW			621	627	1%
713	Bottom						DRILLER: DEBORD.					
							SET 2:33			NOTE: Considerable Black Sp.		
							IN 2:50			Similar To That At		
							STARTED OUT 3:15			Flat Gap.		
							OUT 3:30					
							INCLIN -44°					
							BEARING N 28-30 W. MAG. Mag Adj. 2½° W of Coord. N.					
							Bearing = N 31° W.					

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY J. Brewer

THE NEW JERSEY ZINC CO.

HOLE NO. LW-95

SECT. NO. C-1377 ELEVATION 1651.62
STARTED 12/8/59 BOTTOMED LOG BY W. Hill COORDS. 746,445.21N 798,840.62E
SHED NO. DISCARDED None BRG. S 38°-23'E INCL. -51°SE

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION ZNS	ANALYSES SMPL. NO.	FROM	TO			BLE
0	120						R.C.								
120	150	30	24	M		DI	Med Gry, Cavity 128-134, Oxidized								
150	159	9	9	A		DI	Dk Gry, Sheared, Fa @ 159.								
159	165	6	6	S		DI	Lt-Med Gry, Bands, dip = 30° To core								
165	167	2	2	C		DI & Sqs	It Gry, Abu sqs & congl.; Some Cc MTX								
167	188	11	11	O		DI	Med Gry.								
188	191	3	3	T	CcM-188	DI & Sqs	It Gry, Abu Sqs & congl.; Some Cc MTX								
191	234	43	43	:		DI	Med Gry, Sheared 200-203 (Oxid)								
234	260	26	26	U		DI	Dk Gry, 22° dip To core @ 256	Ru 234-237	234-237, 1/4% EST.						
260	274	14	14	P		DI	Med Gry, Bands, Sqs-274, Oxid Grn sh-272	" 243-252	243-252, 1/2% EST.						
274	300	26	26	P		DI	Lt-Med Gry, Sqs-279, Scatt. shears, Fa-300.	" 275-300, 5% RK MTX.	274-300, 1% EST.						
300	321	21	21	E		DI	Med Gry, Cherty, Cc 318-321, Sqs + sh-321	" 300-321, 90% RK MTX.	309-311 Tr. Sp.						
321	337	16	16	R		DI	Med Gry.	Crackle, lite							
337	359	23	23	:		DI	" ", Spotted, Fa-357, Scatt. shears	Crackle	337-342 2 1/2 EST.						
				K					1" Sp-357, Tr 359.						
359	382	23	23	I		DI	Lt. Gry; lite shears (Open)	Crackle, lite	349-357, Tr sp.						
382	387	4	2	N		DI	med Gry, Sheared, Oxid.	Crackle, lite	359-363, 1/4% EST.						
387	397	10	8	G		DI	Lt. Gry, Open Shears 389, 396-397	Crackle, lite	367-371, 1% EST.						
397	407	10	8	S		DI	Dk Gry, Scatt. shears, Fa 405-407 (Vert.)	Ru 401-405	382-387, 1% EST (Oxid)						
407	413	6	4	P	K-5 ?	DI	Med Gry, Cherty, Some Brn Calite	Crackle	Shi. -392, 397 (Oxid)						
413	442	29	29	O		DI	Med Gry	Ru 413-417, 70% RK MTX	397-403, 1 1/2% EST.						
				R				" 425-429, 60% " "	407-413, Traces						
				T				" + Crackle (50-50) 429-435	432-435, 3'-1 1/2 EST.						
442	457	15	13	:		DI	Med-Dk Gry, Shear-447								
457	481	24	24	:		DI	" " ", Bands, Fa-481	Crackle 457-470	457-470, Traces.						
481	487	6	2	:		DI	Med Gry	"	476-481, 1/2 EST.						
									481-487, 1/2 EST.						
487	497	10	6	:		DI	Dk Gry, Grn sh + Sqs-497	Ru 495-497	495-497, 1/2 EST.						
497	521	24	24	:		DI	Med Gry, Well Banded, dip = 60° To Core	Ru 505-520	505-520, 1 EST. (50% Black Zinc)						
521	532	9	9	:		DI	" " " ", wh Cc 523-524, Cc 529	Crackle 523-532	523-532, 3/4 EST.						
532	574	42	42	:		DI	Lt. Gry, Some Bands, Sqs 550, Fa-564 (Oxid)	" 532-545	532-545, 1/4 EST.						
574	578	4	2	:		DI & Sh.	DI, Grn sh & blue Cc Frags.								
578	605	27	27	:		DI	Med Gry, Fa 604-606								
605	629	24	24	:		DI	Med Gry, pinkish Cast, Matt.	RBr 622-624	622-624, Traces ZNS						
629	646	17	17	:		DI	Med Gry, Matt, Fa @ 646	C.Br 629-646	Traces ZNS 629-634,						
646	657	11	10	:		DI	Med-Dk Gry, Sheared 646-649, Oxidized		636, 637.						
									Tr py @ 641-642						
657	689			:		DI	Med Gry, Cc 667, 678	RBr 668-689	" " " 646-657						
689	714			:		DI	Lt. Gry, white Cc @ 676-677	C.Br 689-714	" ZNS 646-657						
									Traces ZNS & Py.						
				Acid Survey Jan. 5, 1960; Conducted By:					Traces py 695.						
							① Bud McCubbins ② Raymond Morgan								
				Test Taken @ 450' & etched on = 54°; Corrected Angle = 47°											

LOCATION _____

THE NEW JERSEY ZINC CO.

HOLE NO. LW-95 (CONT.)

SECT. NO. _____ ELEVATION _____

STARTED _____ BOTTOMED _____ LOG BY _____ COORDS. _____

PROPERTY _____ SHED NO. _____ DISCARDED _____ BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
714	715½					DI	LT. GRY								
715½	717					Cc	WHITE, SANDY								
717	748					DI	MED GRY, Cc @ 723, 733, 735, 740.	C & R Br	Ra Traces ZNS						
748	785					DI	LT. GRY, LT. MOTT., Cc 757	RBr 758-766	Tr ZNS 770						
								CBr 766-782							
785	796	11	11			DI	MED GRY, ABU BANDS, Cc 787, GRN SH & Sgs @ 796								
796	812	16	16			DI	MED-DK GRY, ABU MOTT.								
812	814	2	2			DI	DK GRY, Cc @ 814.								
814	819	5	5			DI	DK GRY.								
819	823	4	4			DI	LT. GRY, BANDED, SCATT SGS								
823	832	9	9			DI	LT-MED GRY, MOTT., ABU. SGS @ 826								
832	841	9	9			DI	MED GRY, BANDED, THRR GRN SH @ 841								
841	844	3	3			DI	MED GRY, STRONG MOTT., GRN SH @ 844								
844	854	10	10			DI	DK GRY.								
854	863	9	9			DI	MED GRY, SGS @ 857, SCATT. SHEARS								
863	866	3	3			DI	DK GRY, FRACTED								
866	878	12	12			DI	MED-DK GRY. Cong @ 869, SH & SGS @ 872.								
878	886	8	8			DI	DK GRY	CBr, 100% RKMTX							
886	891	5	5			DI	MED GRY, ABU. MOTT.								
891	901	10	10			DI	DK GRY.	CBr, 100% RKMTX							

BOTTOMED @ 901, APPEARS TO BE

ABOUT 10'± ABOVE TOP OF TR

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY J. Brewer

STARTED 1/10/60 BOTTOMED _____ LOG BY W. Hill
SHED NO. _____ DISCARDED None

SECT. NO. _____

HOLE NO. LW-96
ELEVATION 1592.20
COORDS. 745,737.55N 799,348.87E
BRG. N36°-53'W INCL. -50°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION ZN	ANALYSES SMPL. NO.	FROM	TO			BLE
0	33					RC									
33	157					DI	M-DK Gy, Fi xln, wh Cc band 114-114½; Sqs @ 133, 145, Red coloring, Fractured								
157	159					Open									
159	224					DI	M-DK Gy, some bands, Sqs @ 209, 219								
224	229					DI	M-Gy, Cs xln, mott.								
229	237					DI	L-M-DK Gy, bands, Sqs @ 231								
237	238					Cc	white								
238	266					DI	M Gy; in part mott.; Sqs, grn sh & Cc @ 266								
266	269					Cc	white & blue								
269	273					DI	M Gy, Abu Sqs @ 271, 273								
273	274					Cc	white, grn sh & Sqs @ base								
274	331					DI	L-M-DK Gy; Sqs @ 289, 317-318, 330-331, Blue oolite @ 331.								
331	383					DI	M-DK Gy, banded & mott., Sqs 364	B.C 381-383	381-383, 1% EST.						
383	401					DI	L-Gy, band, Sqs 386-388, Cc 394-395 (oolite)	B.C 394-401	394-401, ½% EST						
401	402½					Cc	white								
402½	430					DI	M Gy, Sqs @ 420, congl @ 422								
430	454					DI	M Gy, Sqs @ 454, + grn sh.								
454	459					DI	M Gy, M xln, vuggy, Calcite	B.C 454-459	454-459, Tr sp						
459	496					DI	L-M Gy, Cc @ 458-459, 461, Grn sh @ 459, 480, 487, Sqs @ 474.		Tr sp @ 461, 495						
							Survey of Hole made Jan. 20, 1960 by Raymond Morgan & W. DeBoro								
							Location / Etch / Correction								
							Surface								
							250' 55¼° 49°								
							500' 55½° 48°								
496	535				CcMTX-503	DI	L-M-DK Gy, Sqs 503-504, 516.	B.C, V. lite	sh sp 508, 510, 521						
535	536					Cc	white		523-533, 10' @ ½%						
536	549					DI	M Gy, scatt. Cc nods, Grn sh @ 549, Sqs @ 537								
549	614					DI	L-M Gy, Some bands, Frag Cc & Sqs congl @ 581, Sqs @ 600, Fa 605-607, Sh @ 607	B.C 597-598 B.C 603-614	597-598, 1' @ 5% 603-614, 11' @ ½%						
614	639					DI	M Gy, Grn sh @ 639	B.R 616-641	Ra Tr sp						
639	643					DI	DK Gy	B.R 641-643	Ra Tr sp						
643	654					DI	M Gy, Cc @ 632, 653, Sqs @ 653 + Cc								
654	656				TR @ 654	DI	Cs xln.								
656	658					DI	DK Gy, mott.								
658	665					DI	M Gy, Cs xln, some Fi xln blocks; sqs @ 660, Some blue Cc nods.								

LOCATION _____ **THE NEW JERSEY ZINC CO.** **HOLE NO.** LW-96 CONT.

SECT. NO. _____ ELEVATION _____

STARTED _____ BOTTOMED _____ LOG BY _____ COORDS. _____

PROPERTY _____ SHED NO. _____ DISCARDED _____ BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
665	673					DI	MGy, blu Ce mons.								
673	687					DI	MGy, Mxln; greenish; shaly; Boss DIe 687 w/sgs.	BrC 675-687							
687	693					DI	LGy, Banded	B.R 692-693							
693	698					DI	Crs xln; silic; BrnCe 694.								
698	716					DI	Crs xln; Brn; some LGy, Fi xln DI Frags.	BrR 698-716 (25% RKMTX)	Tr. py 698-716.						
716	734					DI	Crs xln; Brn; very silic; Clastic origin?								
734	743					DI	MGy, Fi xln, abu Ce mons.								
743	749					DI	Crs xln; Sgse 749								
749	750					DI	MGy, Fi xln.								
		Bott. @ 750													

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY N&Z Co, M&M; J. Brewer, surface

HOLE NO. LW-97
SECT. NO. C-1377 ELEVATION 1630.83
STARTED _____ BOTTOMED 2/8/60 LOG BY W. Hill COORDS. N 746,253.05 E 798,986.43
SHED NO. _____ DISCARDED None BRG. _____ INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	63			M		RC									
63	78	15	13	A		DI	L Gy, Fi xln, banded, ½' wh Ce @ 69								
78	80	2	2	S		DI	M-DK Gy, M xln, Sgs @ 80								
80	125	45	36	C		DI	L-M-DK Gy, Fi xln, Sgs @ 90, 93-94, 125, comp @ 125		Trsp @ 120						
125	153	28	26	O		DI	L Gy, Fi xln, 1' oolitic Ce & Abu sgs 142-143.,								
				T			Sgs @ 159, Fa 136-138, Scatt shears								
153	197	44	44	-----	Ce Mtx-195	DI	M Gy, Fi xln, mott. & Banded; Sgs + sh @ 173,								
							sh @ 180, Ce Mtx 185-196, Sgs @ 197								
197	206			K		DI	M-DK Gy, Fi-xln, mott.; Ce Mtx sgs @ 206								
206	225			I		DI	L Gy, Fi-xln, Sheared @ 217								
225	236	11	11	N		DI	M-DK Gy, Fi-xln, Scatt. sgs 235-236, 1' Scatt shears								
236	249	13	9	G		DI	LT-Gy, mott., 1' Fe shears								
249	266	17	14	S		DI	M Gy, Fi xln, 253-254 Ce, 6 in sh + Sgs 259	Brc 260-265, 10% matrix	260-261, 1' @ ½% Zn						
266	333	67	36	P		DI	L-M-DK Gy, Fi xln, Ce band 278-279, 281-282,	Spontic occurrences of breccia,	264-265, 1' @ 15% Zn						
				O			Sgs @ 3.19, Ce nods @ 3.25, 326, 329, Rk badly	oxid	271-277, 6' @ 1½						
				R			Sheared & oxidized		Shi @ 291						
333	386			T		DI	L G, Fi xln.		325-327, 2' shi						
386	393					DI	M-DK Gy, Fi xln.		329-332, 3' @ 1½						
393	405				Tr @ 405	DI	M Gy, Fi xln. some mott., Sgs @ 405.		Shi @ 350						
405	456					DI	M-Crs xln, (breccia)	Brc 405-456, 30% mtx (95% Rk)	356-370, 3% py						
456	505				Tr @ 505	LS	Brn		456-505, Trsp.						
505	518					DI	M Gy, Fi xln, Few Ce nods								
518	522			L		DI	Brn, Crs xln, Sgs @ 522.								
522	524			O		DI	Fi xln M Gy.								
524	525			N		DI	Crs xln.								
525	531			G		DI	M Gy, Fi xln, Ce oolitic @ 530, Sgs @ 531								
531	539			U		DI	Crs xln, silic, Brn.								
539	540			I		DI	M Gy, Fi xln.								
				E											
				W											
		Bottomed @ 540.													

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt.
PROPERTY NJZ, M&M; J. Brewer surface.

THE NEW JERSEY ZINC CO.

STARTED 2/9/60 BOTTOMED 2/22/60 LOG BY W. Hill
SHED NO. DISCARDED None

SECT. NO. C-1377
HOLE NO. LW-98
ELEVATION 1617.51
COORDS. N746,172.82 E799,052.25
BRG. INCL. -90

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	105					RC									
105	111	6	4			DI	LG, Fixln, banded								
111	112	1	1			DI	MG, Fixln, mott.								
112	114	2	—			—	Cavity								
114	117	3	3			DI	MGy, Fixln, mott., Ce nods @ 116, 117, ox10 @ 115.								
117	126	8	6			DI	MGy, Fixln, Cc @ 120, Cc+sqs @ 126								
126	127	1	1			Ce	Grn sh @ base								
127	136	9	5			DI	MGy, Fixln, broken @ ox10, Sqs @ 131 + grn sh.								
136	146	10	—			—	Cavity, Mud Filled								
146	179	33	1			DI	MGy.								
179	182	3	1			DI	MGy.								
182	186	4	1			DI	MGy.								
186	189	3	3			DI	LGy	B.R. 186-189, 20 matrix	186-189, 3' @ 3/4%						
189	235		8			DI	L-MGy, Fixln, some banding, Ce ool. @ 206.		210-211, Tr sp.						
							Ra Sqs @ 227.	B.C. 216-226, (1% matrix)	216-219, 3' @ 1½%						
235	261	26	21		Cmtx 253	DI	LGy, Fixln; Fa 248-249, hvy sqs 253-255								
261	265	4	4			DI	MGy, mott.								
265	281	21	12			DI	LGy.								
281	285	4	3			DI	MGy, open Fa. zone								
285	315	30	30			DI	MGy, sqs @ 296, sh + sqs 315, Fa 281-285	B.C., 5% matrix 295-309	Tr sp 299-301, 308, 309						
							Fa @ 296								
315	325					DI	LGy, Fixln.								
325	327					Ce	oolitic	B.C. 325-327	Tr sp 325-327						
327	329					DI	LGy, Fixln, scatt oolite bands								
329	330					Ce		B.C.	Tr sp 329-330						
330	355					DI	LMGy & Fixln, sporatic bands, oolitic Ce + sqs + Cong @ 355	B.C. 330-335	330-335, 5' @ 2%						
								B.C. 339-355	340-342, 2' @ 10%						
355	368					DI	LGy, banded	B.C. 359-363	342-350, 8' @ 1%						
								B.R. 363-370	Tr sp @ 354, 362						
368	378					DI	MGy	B.C. 370-378	363-369, 6' @ 3						
378	442					DI	Fa @ 397, 401, 402.	B.R. 378-497, 404-407	370-374, Tr sp.						
					Tr @ 440			B.C. 426-432, RCMTX	380-393, 13' @ 1½%	10741	330	335	1.33% Zn		
									404-405, 1' @ 1%	10742	335	340	3.46% Zn.		
									408-410, 2' @ 2%	10743	340	345	5.84% Zn.		
									Shi 419, 420, 426 434.	10744	345	350	1.53% Zn.		
442	453					DI	MGy, Cos xln, Blu Ce Nods @ 448, 451, Grn Sh 453				WEIGHTED	AVERAGE			
453	459					DI	LGy, Mxln, Mott				330 -	350,	20' @	3.21%	ZN.
459	466					DI	LGy, Fixln, Ce Nods 464-466, L. scatt. shears.								
466	475					DI	DKGy Cos xln, Abu. Mott.								
475	477					DI	LGy, Fixln, bands, Ra sqs 477								
477	478					DI	DKGy, Cos xln, Mott.								

LOCATION Little War Creek. Copper Ridge Belt. Sector II

PROPERTY

THE NEW JERSEY ZINC CO.

SECT. NO. C-1377 STARTED BOTTOMED LOG BY W. Hill SHED NO. DISCARDED

HOLE NO. LW-98 (CONT.)

ELEVATION COORDS. BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
478	483					DI	L Gy, Fexln, Abu Bands	Br C 5% matrix 479-483							
483	492					DI	DK Brn, Crs xln, Mott, @ 485, 6" Cc								
492	500					DI	L Gy Fexln.	Br C 8% matrix 492-500							
500	525					DI	DK Brn, Crs xln	Br R 50% matrix 500-518							
525	530					DY	L Gy, Fexln	Br R 40% matrix 525-530							
530	536					DI	DK Brn, Crs xln.								
536	541					LS	Brn								
541	542					DI	L Gy, Fexln, wh Cc 542								
542	547					DI	M Brn, Crs xln, (Clastic)		Py shr 535, 536						
547	551					DI	L-M Gy, Fexln, Banded								
551	561					DI	M-DK Brn, Crs xln, (Clastic)	Br R 50% Matrix (RKMTX 100)							
561	567					DL	M Gy, Fexln, Mott, Cc Mod 563	Br C 561-567							
567	570					Cc	Blu-wh								
570	575					DI	M, Gy, Fexln, mott, Cc 574								
		Bott. 575													

LOCATION: Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY

THE NEW JERSEY ZINC CO.

SECT. NO.
STARTED 2/23/60 BOTTOMED 3/1/60 LOG BY W. Hill
SHED NO. DISCARDED

HOLE NO. LW-99
ELEVATION 1587.56
COORDS. N 746,317.90 E 799,691.86
BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	36					RC									
36	64					DI	M-DK Gy, Fi xln, Sqs + grsh @ 64.								
64	104					DI	L-MK Gy, Fi xln, Sqs-72, 80-81, 95, Cc noos								
104	146					DI	L Gy, Fi xln, Sqs @ 109, Cc congl + sqs + ch @ 140		139-140, shi						
146	193					DI	M-DK Gy, Fi xln, Sqs @ 154 + cc oolite.								
193	215				Cemtx @ 194	DI	L-M Gy, Fi xln. Cemtx sqs 194, Abu sqs 202-203,								
215	385					DI	M-Gy, Fi xln, Sqs @ 230, 239, 234-240 Crs xln, and Cc zone, Some sqs.		Tr sp @ 235, 269.						
385	386				Tr @ 385		Crs xln.								
386	389					DI	M Gy, Fi xln, mott.								
389	391					DI	Crs xln.								
391	392					DI	M Gy, Fi xln, Grnshe 392								
392	394					DI	Crs xln, brn.								
394	396					DI	Fi xln.								
396	411					DI	M Gy, Crs xln, shaly, greenish								
411	417				Ee 417	DI	Fi xln, eyes & Cc noos.								
417	424					DI	Crs xln, greenish								
424	434					DI	M Gy Fi xln, mott.	Br. C, 5% matrix							
434	438					DI	M Gy, Crs xln & Fi xln, blocks	Br. R, 50% matrix							
438	442					DI	Brn, Crs xln.	Br. C 432-440							
								Br. R 440-442, 30% matrix							
442	446					DI	DK Gy, Ls block @ 443½								
446	450					DI	M Gy, Mxln, Br.	Br. R, 40% matrix (100% RKMTX)							
450	457					DI	DK Brn, Crs xln	Br. R, 60% matrix (90% RKMTX)							
457	462					Cc	white								
462	468					DI	M Gy, Fi xln.	Br. R, 20% matrix (100% RKMTX)							
468	469½					Cc	white								
469½	483					DI	M-DK Gy, Fi xln, Thick grnshe 483	Br. R 469½-477 (50% RKMTX)							
483	500					Ls.	Brn, shaly, Cc noo @ base, scatt sqs @ 488.								
		Bott. @ 500'													

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt

PROPERTY N.J.Z Co. M&M, Lewis Turnmire, Surface

HOLE NO. LW-100

SECT. NO. _____ ELEVATION 1621.74

STARTED _____ BOTTOMED _____ LOG BY W. Hill & F. Fischer COORDS. N 745,752.65 E 793,971.09

SHED NO. C-4 DISCARDED _____ BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION Est.	ANALYSES SMPL. NO.	FROM	TO	EST.	ACTUAL	BLE
0	60					RC.									
60	116	56	40			DL	Bx core, M-DKGy, Fixln.								
116	203	87	48			DL	L-M-DKGy, Fixln, Sqs @ 120, 188, Cemtx sqs @ 189, hry sqs + gnsh @ 203, Ce nodes 189.								
203	246	43	37			DL	L-M-DKGy, Fixln, Abu sqs + conglo @ 207.								
246	270	23	23			DL	M-DKGy, Fixln.								
270	289	19	19			DI	L-MGy, Fixln, Abu sqs 272-273, Ra sqs @ 289, Ce @ 274, Ce 275-277, 281, 283-284, 289								
289	292	3	3			Ce	white								
292	309	17	17			DL	M-Gy, Fixln, Ra sqs @ 302, 309.								
309	325	16	12			DL	L Gy, Fixln, Ce @ 312, Abu sqs 314-317.								
325	335	10	8			DL	MGy, Fixln.								
335	341	6	4			DL	L Gy.								
341	361					DI	L-MGy, Fixln, Ra sqs @ 361								
361	362					Ce	Blue oolite								
362	377					DL	L-MGy, Fixln, conglo Ce @ 371, scatt lite sqs.								
377	381					DL	DKGy, Gnsh @ 380								
381	398					DL	DKGy.								
398	423				Cemtx @ 400	DL	L-MGy DL, Fixln, Cemtx sqs @ 400, Cemtx @ 408, Ra sqs 408-409, Abu sqs 409, Ra sqs 419								
423	430					DL	M-DKGy, Fixln.								
430	561					DL	L-MGy, Fixln, Abu sqs @ 433, Ce conglo @ 445, Fe @ 446 Abu sqs @ 450, Blu Ce @ 455, Gnsh @ 456, 463, 4" blu Ce @ 471, 2" Ce @ 472, Ra sqs 474-475, Fe 495-496, Ra sqs @ 476, blu Ce @ 480, 483, Ce @ 491, sqs @ 493-494, 498, Ce conglo 513, sqs @ 516½, gnsh @ 528, sqs 532-533,		ZNS Tr @ 483, 493.						
561	584					DL	M-DKGy, matt, Fixln, sqs @ 567, Abu sqs @ 583								
584	585				Tr @ 584	DL	Brn, Cosxln.								
585	598					DL	MGy, Mxln, sheared								
598	602					DI	M Gy, Cosxln.								
602	607					DL	L Gy, Fixln, sheared	B.C. 5% matrix							
607	615					DL	Brn, Cosxln.	B.C 5% matrix		10674	662	667	1½	2.71	
615	620					DI	L Gy, Fixln, Gnsh @ 620	B.C 5% matrix		10675	667	672	1	2.13	
620	635					DI	L-MGy, Cosxln	B.C, 3% matrix, 10% remtx	Tr sp @ 644, 648, 658	10676	672	677	½	1.13	
635	637					DI	M-Gy, Fixln, 6" wh Ce base	B.C, 10% matrix, 10% remtx	662-670, 8' @ 2%	10677	677	682	1	1.31	
637	648					DI	M-DKGy, Fixln, 6" boss. of Ce base	B.C, 3% matrix, 10% remtx	670-681, 11' @ 1%	10678	682	687	¾	0.42	
648	681					DI	L-MGy, Cosxln, 1½' bkt wh 652-653½, Ce @ 648½, Cherty 655-668., DI block @ 667-669, DI block 672-672½,		681-704, 25 @ 1%	10679	687	692	1	1.56	
										10680	692	697	¾	0.43	
										10681	697	701	1	0.93	
681	702					DI	M-DKGy, Cosxln, (clastic), DI block 681-682, 685-685½, 688½-689, bin oolite @ 696								
702	703														

LOCATION _____

THE NEW JERSEY ZINC CO.

HOLE NO. LW-100

SECT. NO. _____ ELEVATION _____

STARTED _____ BOTTOMED _____ LOG BY _____ COORDS. _____

PROPERTY _____ SHED NO. _____ DISCARDED _____ BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
703	724				Tc 706	DI	L-M Gy, Cs xln, 706-708, Fe xln, Cc coug @ 708, Charty 712-716		ZNS sh @ 703	WEIGHTED AVERAGES					
724	726					DI	L-M Gy, Fe xln.			662-701, 39' @ 1.36% ZN					
										662-692, 30' @ 1.54% ZN					
		Bottom 726'								662-672, 10' @ 2.42% ZN.					

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY Lewis Turnmire

STARTED 3-23-60 BOTTOMED 4-8-60 LOG BY Fischer & Hill
SHED NO. C-4 DISCARDED None

SECT. NO. C-1449

HOLE NO. LW-101
ELEVATION 1568.15
COORDS. N 745,384.03 E 794,745.56
BRG. N 1° W INCL. -50°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	18						Overburden								
18	66		BX-36'			DI	M-Dk Gy. Fixln., wh. Ce 36½-41½; brn Ce 44½-45,	BrR 35-36 25% 75%Rk							
							4" wh Ce @ 56', 3" Grn sh. @ 30, Ra sgs @ 59.	BrR 36½-41½ 25% 100% Rk							
66	185		BX-126			DI	L-M Gy. Fixln, 3" Ce @ 76, conglom. Ce @ 79 &								
			-140'				81, 3" Gy sh. @ 102.								
							Opening 120-126								
							L Gy Ce @ 127, conglom. 132-133. Fa 136-137 ⊥								
							bedding, 6" L Gy oöl. Ce @ 152. Oxid. 126-137, Ce @								
							175'.								
185	213					DI	M-Dk Gy. Ra sgs @ 197, 200-201, Dk Ce @ 205,								
213	341						6" Ce @ base.								
						DI	L-M Gy. Ra sgs 214-215, 224, ½" Grn sh @ 234,								
							Fa 238-38½, Ra sgs 239, 250, 305, Grn sh. @								
							328, Wh Ce 329-330, Ce nod. @ 332, Abu sgs								
							@ 340.								
341	356					DI	Dk Gy, Fixln, oölitic Ce @ 352								
356	389					DI	L-M Gy, Fixln, Ra sgs 360-361, sgs + Ce 366, Fa @								
							367, Abu sgs scatt 385-387 (Ce Mtx @ 387).								
389	464					DI	M-Dk Gy, Fixln, Congl. @ 391 + sgs, Abu sgs @ 391½,								
							393-394. Abu sgs (Ce Mtx), 399-401. Sed. Br. +								
							Abu sgs, wh. chert @ base, Ce @ 447, sgs 450-451;								
							Ce nod. @ 454, 456-457 sgs + wh. Ce; Ce @ 457½-								
							458½, Wh Ce 462-464								
464	495					DI	L-M Gy, Fixln, sgs @ 466½, Ra sgs @ 473, Congl +								
							sgs @ 480, Ra sgs 483-485, Ce @ 485.								
495	526					DI	M Gry, Fixln, Wh Ce @ 499-499½; Congl. 501½, sgs 517.								
						DI	L-M Gy. Fixln. 529-533. Sed Br & Abu sgs.								
	563				Ce Mtx @ 557	DI	Ce Mtx sgs @ 557. Ra sgs @ 563.								
563	578				"	DI	L Gy, Fixln, banded, Ra sgs 573								
578	594					DI	M Gy. Fixln. Ce congl. 594	BrC 582-595. 7% matrix	582-595 2% FeS_2						
594	722					DI	L Gy. Fixln, sgs @ 627, Cherty 622-34, conglom. @ 634.		shi FeS_2 682-683.						
							Ce nod. @ 640, 643, 644, 646, Sgs @ 642, Ce 661-662,								
							hvy grn sh. @ 674 + sgs, Sed Br @ 722								
722	728				TR @ 722	DI	L Gy. Fixln	726-728 BrR 50% matrix 90% Rk	Shi ZnS @ 724						
728	735					DI	M Brn Crs xln	728-731 BrR 30% matrix	729-731, 1% Zn						
735	739					DI	M Gy. M & Crs xln	735-739 BrR 50% matrix	731½-733. 2% Zn.						
739	743					DI	M Gy. Fixln								
743	751				E ?	DI	Dk Gy. Fixln								
751	753					DI	L Gy. Fixln	754-760 BrR 50% matrix 50% Rk							
753	760					DI	L Gy. Fixln.								
760	770					DI	M Brn. Crs xln.								
770	785					DI	M Gy. Fixln. shears	BrR 5% matrix							
785	795					DI	Dk Brn. Crs xln sgs @ 792, sh @ 793; 793-94 Wh. Ce								

LOCATION

THE NEW JERSEY ZINC CO.

HOLE NO. LW-101 Cont'

SECT. NO. ELEVATION

STARTED BOTTOMED LOG BY COORDS.

PROPERTY SHED NO. DISCARDED BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
						Dl	M-Dk Gy, Fi xln, cherty								
	819					Dl	M-Dk Gy, Fi xln								
819	824					Ce	White								
824	837					Dl	M Gy Crs xln								
837	838					Ce	White								
838	842					Dl	M Gy, Fi xln, sgs @ 840								
842	850					Dl	M Brn, Crs xln								
		Bott. @ 850													

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek
Copper Ridge Belt
Sector II

HOLE NO. LW-102

SECT. NO. C-1498 ELEVATION 1628.69

STARTED 4-9-60 BOTTOMED 4-19-60 LOG BY Hull & Fischer COORDS. N 745,852.67 E 793,969.97

PROPERTY NJZ Mine (Lewis Tunnire-Surface) SHED NO. C-4 DISCARDED None BRG. INCL.

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	90			RC											
90	166	76	BX-114			DI	M-D Gy Fi xln; Ra sgs 106; Abun Sgs 110-111, 127-128 Sgs & Conglom; 129-130 Ce some oöl, 137 Gs & Ce; Fa 144½ Ra Sgs 140								
						DI	L-M Gy Fi xln, Sgs @ 193-194, Ce bann 194½-195, 197-198½, 200½-201, 208-209 Sgs @ 221 & Grn Sh, 229, 233-236, Ce @ 236, Sgs 252 253 & Grn Sh, 258-260, 276-277, Grn Sh 249-251, Ce Congl, Ce Mtx Sgs @ 320,								
166	320	154	154		Ce Mtx @ 320		Sgs @ 358 (Ce Mtx?) Sgs 363								
320	381	60	60			DI	M Gy Fi xln,								
381	456	75	75			DI	L Gy Fi xln, Ra Sgs @ 401, Abu Sgs @ 408 Sgs 433								
456	490	34	34			DI	L-M Gy Fi xln		Zns Shs @ 449						
490	492	2	2		T @ 490	DI	M Gy Crs xln								
492	498	6	6			DI	M Gy Fi xln								
498	500	2	2			DI	M Gy Crs xln, Sed Br @ 498-499								
500	503	3	3			DI	M-Dk Gy Fi xln								
503	506	3	3			DI	Blk & Wh, Crs xln								
506	512	6	6			DI	L Gy Fi xln	Br C, 5% Mtx, 0% Rk mtx							
512	519	7	7			DI	M Brn Crs xln	Br C, 5% Mtx, 0% Rk Mtx							
519	522	3	3			DI	L Gy, Fi xln, Cherty								
522	525	3	3			DI	Blk & Wh Crs xln								
525	553	28	28			DI	M-Dk Gy Fi xln; Some band Crs xln	Br C 1% mtx, 0% Rk mtx	Zns Sh @ 548						
553	557	4	4			DI	Brn, Crs xln								
557	583	26	26			DI	Blk & Wh, Clastic, Crs xln	Br R 70% mtx, 100% Rk mtx	564-583, 19' @ 2% Est						
583	584	1	1			LS	Brn								
584	585	1	1			DI	Brn, Crs xln								
585	586	1	1			DI	L Gy Fi xln, Sgs @ 586								
586	599	13	13			DI	Blk & Wh, Crs xln Clastic	Br R, 80% mtx, 100% Rk Mtx	586-599, 13' @ ½% Zn Est						
599	599½	½	½			LS			599½-609, 9½ @ ½% Zn Est						
599½	609	9½	9½			DI	Blk & Wh, Crs xln Clastic								
609	610	1	1			LS									
610	617	7	7		T @ 610	DI	M Gy Fi xln, Cherty								
617	620	3	3			DI	M Gy Fi xln, Cherty								
620	626	6	6			DI	Brn, M Crs xln, "U" bed - Sgs @ 626								
626	630	4	4			DI	L Gy Fi xln								
	Bottom - 650'														

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY Lewis Tunnire (NJZ-Mine)

STARTED 4-20-60 BOTTOMED 4-30-60 LOG BY Hill & Fischer
SHED NO. DISCARDED

SECT. NO. C-1498 ELEVATION 1621.97
COORDS. N 745,626.15 E 793,980.76
BRG. INCL.

HOLE NO. LW-103

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	30	30	0				Overburden								
30	39	9	9			D1	DK Gy, Fixln								
39	64	25	25			D1	Lt M Gy, Fixln, Ra Sgs @ 48, Ce @ 54,58								
64	134	70	70			D1	L Gy, Fixln, bleached, Ra Sgs @ 65, Ce @ 101								
							Sgs + 6" grn Sh @ 115, Ra Sgs @ 119, 128, Sh + Ce 131								
134	178	44	44			D1	L, Mt DK Gy, Fixln, grn Sh @ 47								
178	184	6	6			D1	M Gy, Mxln								
184	296	112	112			D1	M Gy, Fixln, Ra Sgs + Congl @ 189, Ce band 219, 219½								
							121-222, 224, Ce 266								
296	336	40	25			D1	L-M Gy, Fixln, broken, numerous lite Shears,								
							Sgs @ 318, Fa 225-226								
336	386	50	32			D1	M-DK Gy, Fixln, Ra Sgs @ 345-362, Ce @ 363,								
							Ce Mtx Sgs @ 375, wh Ce @ 386, Excessive Fract								
							336-386, Hole Sanding during drilling								
386	425	39	37			D1	L-M Gy, Fixln, Sgs @ 396, Abu Sgs @ 403,								
							409-411, Scatt Sgs, lite fracts, some oxidation								
425	445	20	13			D1	L-M Gy, Fixln, Ra Sgs 428, Ce nods 429, Shearing &								
							Oxid, 430-435								
445	470	25	21			D1	M-DK Gy, Fixln, 6" blue oöl. Ce @ 450, 1' Conglom								
							oölitic Chert 454-460								
470	492	22	19			D1	L-M Gy, Fixln, Fa Oxid @ 477								
492	544	52	51		Ce Mtx 495	D1	M-DK Gy, Fixln, Ce Mtx Sgs @ 495 & 496-497, DK								
							banded 508-517, Sgs @ 517, Abu Sgs 524-530								
							v. siliceous 523-525								
544	636	92	88			D1	L-M Gy, Fixln, Ce nods 549, 550, 550½, 562								
							v. strong banding 562-565; Ra Sgs 559, Fa (Hi c)								
							556; 2" Grn Sh 558 over 1" finely oölitic Ce; Scatt Sgs								
							568-570, Ce nods 566, 570, 572, ½" Gy Sh @ 582 &								
							587; Abu Sgs 611, v. Cherty 591-593, Fa 592, Hi c								
							Fa 615; wh Ce 626-628	BrC 624-25; 15%	Heavy FeS2 @ 625						
636	642	6	3			D1	L-Gy Fixln		FeS2 Sh: 634						
642	659	17	16			D1	M-D Gy, Fixln, upper 3-4' w/ Grn Sh, mott, scatt								
							wk "Crackle"	BrC weak 643-59 5%							
659	670	11	10		TR-663	D1	M Gy, M-Crs-Xln Ce (dk) 665-666	BrR 659-665, 20%, 50%							
670	677	7	7			D1	M Gy, Fixln, 2" variegated Gr & Blk Sh @ 671	BrR 668-669 20%	684-685; 1" @ 2% Zn						
677	685	8	8			D1	L-M Gy, Crs Xln, Hole Sanding in; driller Had to wash out;	BrR 682-685, 20%							
685	690	5	5			D1	L Gy, Fixln								
690	694	4	4			D1	M Gy, Mxln, Scatt Vert Shears Throughout								
694	700	6	6			D1	Breccia, M Gy, Fi & Crs Xln frags	694-700, BRr, 30% Mtx, 100% Rk	Tr Zns @ 715, 718, 719						
700	703	3	3			D1	M Gy, Crs Xln		736, 738						
703	774	71	70			D1	Breccia Rubble, Fi, M Crs Xln blocks, Siliceous	703-774, BRR, 30% Mtx, 85% Rk							
							Some Scatt Shears								

LOCATION _____

THE NEW JERSEY ZINC CO. PAGE-2

HOLE NO. LW-103 (CONT)

SECT. NO. _____ ELEVATION _____

STARTED _____ BOTTOMED _____ LOG BY _____ COORDS. _____

PROPERTY _____ SHED NO. _____ DISCARDED _____ BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
774	791	17				LS	Brn Shaly, Crs Xln Dl 783-784 Grn Sh & Ceolite Congl @ 791								
791	793	2	2			Dl	Brn Crs Xln								
793	798	5	5		TBD 793?	Dl	M-Dk Gy, Fi Xln								
798	805	7	7			Dl	M Brn Crs Xln, Sgs @ 701, Cherty								

Bottom - 805

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY W.M. Brewer

HOLE NO. LW-104
SECT. NO. C-1657
ELEVATION 1661.44
STARTED 5-2-60 BOTTOMED 5-5-60 LOG BY W. Hill
COORDS. N 746,357.72 E 785,159.43
SHED NO. DISCARDED
BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	122	122	–	RC			Overburden								
122	132	10	7			Dl	Fi & Crs xln, breccia, Abu Sgs @ 124	122-132 Brr, 20 Mtx, 100 Rk							
132	139	7	7			Dl	L-Gy, Fi xln								
139	150	11	11			Dl	Brn Crs xln								
150	178	28	28			Dl	Breccia, Fi xln, blocks in Crs xln Mtx	150-178, 25% Mtx, 95% Rk							
178	186	8	8			Dl	M Gy, Crs xln								
186	194	8	8			Dl	Breccia, Fi xln blocks in Crs xln Mtx								
194	210	16	16			Dl	Dk & Crs xln								
210	219	9	8			Dl	M-Dk Gy Fi xln, E bed lithology & Cherts								
219	255	36	34			Dl	Breccia, Fi xln blocks in Crs xln & Whd Mtx, 219-255 Brr, 30% Mtx, 50% Rk 50% Dl								
255	257	2	2			Ls	Brn, Ce @ base								
257	260	3	3			Ls	Breccia, ls blocks with blk sh & Ce Mtx								
260	270	10	10			Ls	Brn, Shaly, Cherty								
270	281	11	11			Dl	Dk Gy, Crs xln, Abu Sgs @ 273								
281	282	1	1			Ls	Brn								
282	289	7	7		T@282	Dl	M Gy, Fi xln								
289	291	2	2			Dl	Dk Gy, Crs xln								
291	293	2	2			Ls	Brn Cherty								
293	295	2	2			Dl	M Gy, Crs xln, Cherty								
295	306	11	11			Dl	M Gy, Fi xln								
	Bottom - 306														

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek
Sector II
Copper Ridge Belt
PROPERTY James Brewer (NJZ-Mime)

STARTED 5-6-60 BOTTOMED 5-12-60 LOG BY Hulse Fischer
FINISHED NO. _____ DISCARDED _____

SECT. NO. _____

HOLE NO. LW-105
ELEVATION 1674.80
COORDS: N 746,056.12 E 795,157.95
BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	40			RC			overburden								
40	63	23	18	Massot		DI	M. Dk Gy, Fixln, dk Ce 45, Opening & oxid @ 50; Abu Sgs	Br R 43-44, 15% Mtx, 10% RK							
					CeMtx 60		@ 60', opening @ 60',								
63	114	51	49	Kinnesport		DI	L-M Gy, Fixln, Abu sgs over 1" Grn Sh @ 67; Ra Sgs								
							68, 68½; ½" Grn Sh 75, Scatt wk Shears Throughout								
							Sgs & 1" Grn Sh @ 76, Abu Sgs 80, 84½, CeMtx 82-83								
							Ra Sgs 83-84; CeMtx 86 & 90; Abu Sgs 87-88, 1" Grn								
							Sh @ 89, Sgs 93 w/Grn Sh								
114	129	15	12			DI	M-Dk Gy, Fixln, Abu Sgs 123½ over ½" Grn Sh								
129	154	25	19			DI	L-M Gy, Fixln, Oxid @ 140, 144, 151-152	Br R 144-146, 25% Mtx, 100% RK Mtx							
154	199	45	43			DI	L-M Gy, Fixln, 6" Ce breccia 164, 1' Ce over 4" Grn Sh								
							166-67, Scatt Sgs 178-180 over 1" Gr Sh, 6" blue								
							Ce bracc & sealed w/Grn Sh @ 190								
199	210	11	10			DI	M-Dk Gy, Fixln, ~~Strong~~ Shearing High ∠ 20°,								
							oxid. 210, Grn Sh 210								
210	249	39	37			DI	M-Dk Gy, Mdln Fixln, Scatt wk Shears, Abu Sgs 222								
							6" Grn Sh 230; Abu Sgs over thin Grn Sh 237,								
							banded buff dol. 246-47; 4" Grn Sh w/Sgs 249								
249	268	20	19		TR-249	DI	M Gy; Crs xln; Ce 257 & 258; buff colored								
							265-267								
268	282	13	12			DI	L-M Gy, Fixln-Mdn, Conc. Ce Nod 276-78; 3" Grn								
							Sh 282.								
282	289	7	7			DI	M. Gy, Crs xln; v. siliceous 285-88								
289	305					DI	L-M Gy, Fixln-Mxln								
305	319	14	10			DI	M Gy, Crs xln, broken & oxid, Siliceous								
319	334		9			DI	M Gy, Fixln	319-334, Br R, 25% Mtx, 75% RK							
334	343		6			DI	M-Dk Gy, Crs xln, Clastic, Siliceous	334-343 Br R, 60% Mtx, 100% RK							
343	372					LS	Brn Shaly, Few frasts with re-xln Mtx								
372	381				T-375	DI	M Gy, Fixln								
381	382				U-381	DI	Crs xln, 50% Silica								
382	410					DI	M Gy, Fixln, Few Crs xln bands								
							Sgs @ 406								
	Bottom	—	410												

THE NEW JERSEY ZINC CO.

LOCATION Little War Creek Area
Sector II
Copper Ridge Belt
PROPERTY V.M. Brewer NJZ Min.

HOLE NO. LW-106
SECT. NO. C-1657 ELEVATION 1662.40
STARTED 5-12-60 BOTTOMED 5-20-60 LOG BY Fischer & Hoagland COORDS. N 74,265.58 E 795.161.21
SHED NO. DISCARDED BRG. INCL. -90°

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
0	14	14	-	RC	-	-	Overburden								
14	26	12	4 BX	Oma		Dl	M Gy Fixln. Openings								
26	48	22	0			-	Opening								
48	50	2	2 NX	Oma		Dl	L Gy, Fixln, Shears Scatt, oxid ch @ base								
50	76	26	11 BX	"		Dl	M Gy, Fixln, Scatt Shears; Cavities toward base								
76	90	14	10 BX	"		Dl	M Gy, Fixln, Scatt. Shears; Ra Sgs 90'								
90	97	7	6 AX			Dl	L-M Gy, Fixln, Cherty 91-92; Shears below								
97	119	22	21			Dl	M-Dk Gy, Fixln; BP Fa @ 98; Abu sgs 101½-103½ over								
							2" Grn sh; Ra sgs over 1 Grn Sh 103½; 3" Grn Sh 105½								
							107, Grn Sh @ 110, 111; Ce nod @ 114, 1" Grn Sh @ 117								
119	122	3	3			Ce	Wh								
122	158	36	34			Dl	L-M Gy Fixln BP Fa @ 123; heavy ss 141; thin sed brecc								
							149 ¼ @ 157								
158	202	44	41			Dl	M-Dk Gy, Ra Sgs over 6" R Mtx brecc @ 170,								
							silceous M-xln 175-176½ w/Ra Sgs @ base; Fa zone								
							181-182½, BP Fa 185½; Oil Ce over Cmtx ss @ 188-194½								
							2" laminated blk grn Sh 194½; BP Fa @ 197½								
202	226	24	23			Dl	L-M Gy Fixln, oxid 203-204; Oil Ce @ 206 over								
							thin grn Sh over BP Fa; thin Fa @ 216½, 217 oxid;								
							Oxid Fa @ 226								
226	239	13	13			Dl	M-Dk Gy, Fixln								
239	255	16	16			Dl	L-M Gy, Fixln, Abu sgs 242-43, Ra Sgs 244-44½, Ra								
							Sgs 248								
255	282	27	26			Dl	M-Dk Gy, Fixln, Ce nod @ 277								
282	301	19	13	OK	Ce Mtx 284	Dl	L-M Gy, Fixln, Abu Sgs 284-285; 4" Ce @ 290, Fa								
							@ 296								
301	360	59	46			Dl	L-M Gy, Fixln, Abu Sgs 302-304, 3" Ce 306		FeS_2 Shi: 336						
							Oil Ce @ 339; Ce Nodc 328, Congl 334½, Ra Sgs								
							357 Wh Oil Ce @ 359	Br R 372-74, 20% Mtx	FeS_2 372-74, 9%						
360	379	19	19			Dl	L-M Gy, Fixln		Shi FeS_2 376						
379	381	2	2	"		Ce	Brecc w/grn Sh @ base	Br C 380-81, 16% Mtx	Shis Zn 380-90%						
381	398	17	8			Dl	L-M Gy, Fixln		Scatt Traces Zns 395						
398	436	35	33			Dl	L-M Gy, Fixln, 2" Grn sh @ 424, Oxid BP @ 431	Br R 403-404, 15% Mtx	403-04, Est 1% Zns						
436	440	4	4		TR. 440	Dl	L-M Gy, Fixln, Brecc w/grn Sh 439-40		Tr. Zn 411, 412-13,						
440	449	9	7			Dl	M Gy, M Crs xln, 3" Ce @ 441, 4" Ce @ 442		414, Scatt wk Shis						
							Abu Sgs @ 443		418, 419-21, 422-24						
449	479	30	28			Dl	L-M Gy, M Crs xln, 3" grn sh w/sgs @ 453		FeS_2 Shis 437						
							Cherty 460-62, Contorted grn Sh @ 463		Zn Shis 457						
							1" Grn @ 470								
479	492	13	12			Dl	M-Dk Gy, Crs xln, BP Fa 490	Br C 491-92, 15% Mtx							
492	506	14	13½			Dl	L-M Gy, Crs xln, vy Cherty 494-98, Scatt wk Crackle								
							6" Fa gouge 496, Hic, Some oxid below								

LOCATION _____

THE NEW JERSEY ZINC CO.

HOLE NO. LW-106 (Cont.)

SECT. NO. _____ ELEVATION _____

STARTED _____ BOTTOMED _____ LOG BY _____ COORDS. _____

PROPERTY _____ SHED NO. _____ DISCARDED _____ BRG. _____ INCL. _____

DEPTH FROM	DEPTH TO	DIST.	CORE	FM.	MKRS.	ROCK	REMARKS	BRECCIA	MINERALIZATION	ANALYSES SMPL. NO.	FROM	TO			BLE
506	526	20	13	OK		Dl	L-M Gy, Fix/n - Mx/n, Hi∠ shears, Several runs soft rock	Br R 509-526, 50%, 100% RMtx							
526	586	60	58	OK		Ls	Gy Ra Sgs 530, 18" Rk MtX Br in Ls @ 528-30 also from 538-542, w/ Sgs; also 547.6-8' RMtx, Ra sgs 574-77								
					T @ 586 U @ 596										
586	596	10	10	Ok		Dl	M Gy, Fix/n								
596	598	2	2			Ls	Gy								
598	600	2	2			Dl									
	Bott @	600													