

U. S. BUREAU OF MINES
CHURN DRILL HOLE LOG

Date started: June 10, 1948
Date completed: June 18, 1948
Struck water at 50 feet
Water stands at 25 feet

Hole No. NE-23-D
Project 15-226, North Empire
Cherokee County, Kansas
Collar elevation - 923

Coordinate location: 3494-N, 3323-E

<u>FEET</u> <u>FROM</u>	<u>TO</u>	<u>FORMATION</u>
0	5	Surface rock, red clay, little sandstone
5	10	Red clay, little sandstone, little gray shale
10	15	Gray shale
15	35	Blue shale
35	40	Gray, blue & brown chert, selvage, cottonrock, little marcasite
40	45	Gray, white & brown chert, cottonrock, marcasite.
45	50	Gray, white, mottled chert, cottonrock, little green limestone, little marcasite
50	55	Dull gray & blue chert, some white chert, little gray limestone, marcasite, some green selvage.
55	60	Gray, blue & white chert, little cottonrock, green selvage, much marcasite, tr Pb
60	65	Gray, blue mottled & brown chert, green selvage, little cottonrock, some marcasite, tr Pb
65	70	Gray, brown, blue & mottled chert, tr green limestone, trace marcasite, tr Pb
70	75	Brown, gray & white chert, tr marcasite, thin tr Pb
<u>"M" - bed</u>		
75	78	Lost cuttings in drift
78	84	Open drift
84	88	Brown, gray, blue & white chert, some mottled chert, tr Zn, tr Pb (probably cavings in old drift)
88	92	White, brown & blue chert, faint tr Zn and Pb (probably cuttings in bottom of old drift)
92	100	Brown, gray, blue & white chert, little gray limestone, tr Zn, tr Pb (probably cavings in bottom of old drift). Obtained very few cuttings
100	105	Gray, white, brown & mottled chert, some brown jasperoid, little sandy brown limestone, Zn shines, thin shines Pb
105	107½	Gray, white, brown & blue chert, little brown jasperoid, brown mud, Zn shines, thin shines Pb
107½	110	Gray, blue mottled & white chert, little brown jasperoid, little cottonrock. Zn shines, Pb shines
110	115	Gray, white, brown, blue & mottled chert, little cottonrock, brown selvage, thin Zn shines, thin Pb shines. Lost most of cutting in mud opening

Hole No. NE-23-D (Continued)
 Project 15-226, North Empire
 Cherokee County, Kansas.

<u>FEET</u>		<u>FORMATION</u>
<u>FROM</u>	<u>TO</u>	
115	130	White, gray & brown chert, some cottonrock, faint tr Zn & Pb
130	135	Gray, white & yellow chert, yellow mud, tr green selvage, very faint tr Pb and Zn
135	145	Gray, white & yellow chert, yellow mud, very faint tr Pb & Zn
145	150	Loose gray, white, brown & yellow chert, little mud, faint tr Zn and Pb
150	155	Loose white, brown, gray chert, leached gray chert, yellow mud, very faint tr Pb and Zn
155	160	White, brown, blue, gray mottled chert, some translucent chert, faint tr marcasite, very faint tr Pb and Zn.

Reeds Spring

160	165	Gray, white, brown, dark blue chert, some translucent chert, faint tr Zn
165	171	Dark blue, dark gray, brown, white & mottled chert, very faint tr Zn

REMARKS: Formations open, intersected old open mine drift 78 to 81 - bottom old drift probably 100 feet. Thinly mineralized.

<u>SECTION</u>		<u>ASSAY</u>		
<u>FROM</u>	<u>TO</u>	<u>% RECOVERY</u>	<u>ZINC</u>	<u>LEAD</u>
100	105	38	0.86	0.38
105	107½	66	0.50	0.19
107½	110	58	0.36	0.19
110	115	52	0.46	0.37

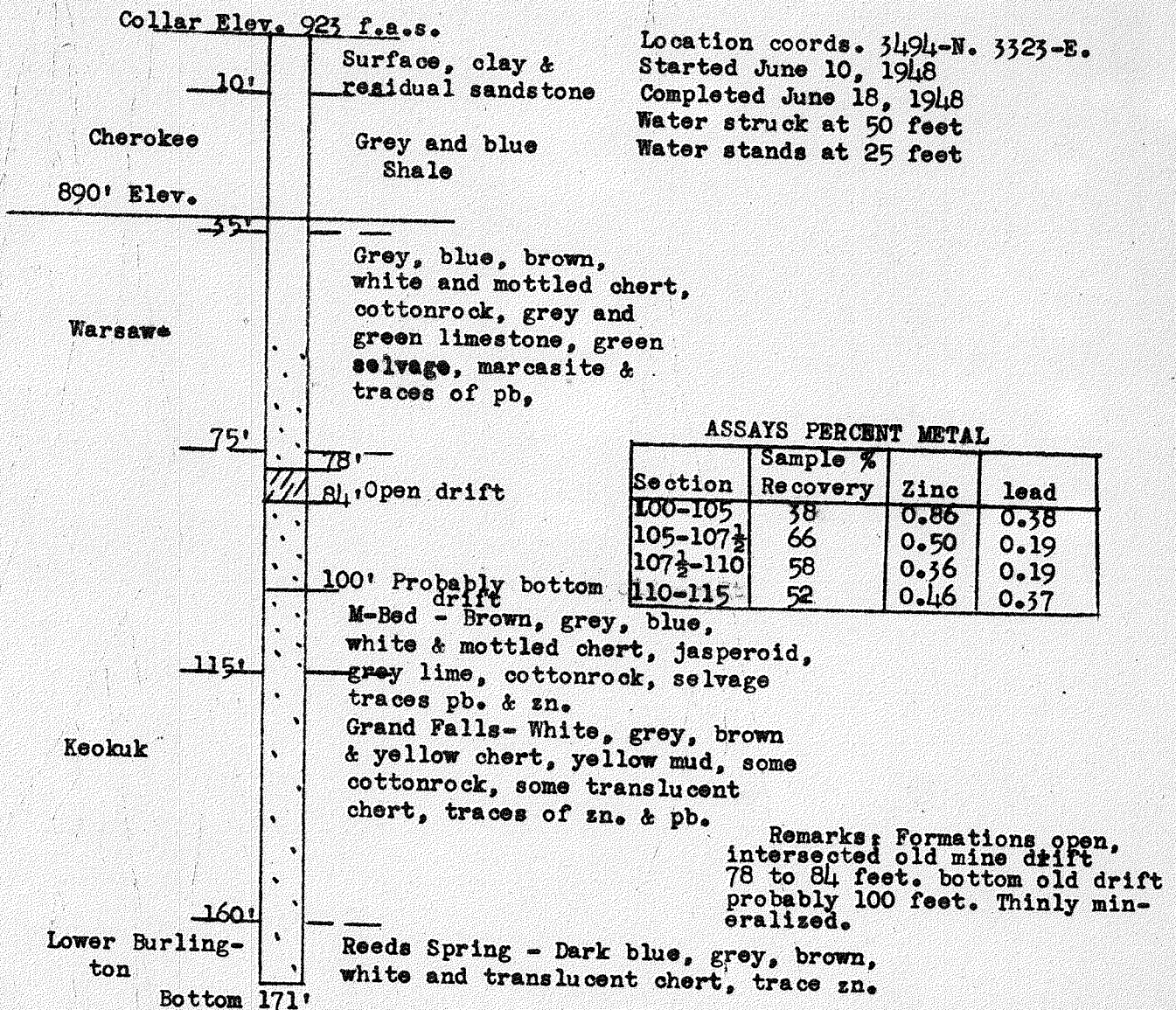
No. sludge samples - 33

No. assay samples - 4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

NORTH EMPIRE PROJECT NO. 15-226
Cherokee County, Kansas.

SECTION OF CHURN DRILL HOLE NO. NE#23-D



Scale 1"=30' Vertical