0077

Document Information Form

Mine Number: C/002/007

File Name: Incoming

To: DOGM

From:

Person N/A

Company Kaiser Steel Corporation

Date Sent: N/A

Explanation:

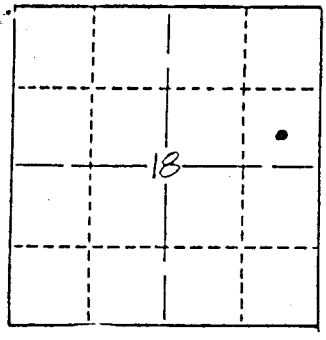
Drill Log

cc:

File in:
C/ 007 , 007 , Incoming
Refer to:
- ☐ Confidential
- ☐ Shelf
- ☐ Expandable

Date _____ For additional information

KAISER STEEL CORPORATION
DRILL LOG



T 14S
R 14E

Property: Sunnyside

Hole Number: D.H. 29
Collar Elevation: 7346.74
Determined by: Survey
Total Depth: 1425
Total Plug Footage: 750
Total Core Footage: 675
Core Interval _____ Seam _____
Core Interval _____ Seam _____
Core Interval _____ Seam _____

Sheet 1 of 15
Drilling Company: Boyles
Date Begun: 8/19/73
Date Completed: 10/18/73

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DIVISION OF OIL GAS & MINING

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
						Samples not taken 0-750'

Rick,

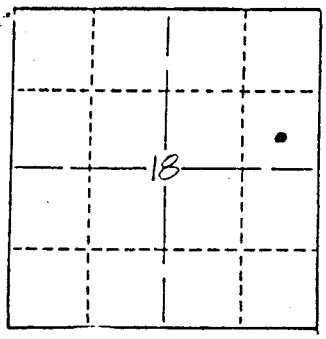
This is the drill hole data that was used to make the Castle Gate Sandstone thickness map.

Thanks
Lang Pearce

File in:
- ☐ Confidential
- ☐ Shelf
- ☐ Expandable

Refer to Record No 0070 Date _____
In C/ 007 , 007 , Incoming
For additional information

KAISER STEEL CORPORATION
DRILL LOG



T 14S
R 14E

N E

Hole Number: D.H. 29
Collar Elevation: 7346.74
Determined by: Survey
Total Depth: 1425
Total Plug Footage: 750
Total Core Footage: 675
Core Interval _____ Seam _____
Core Interval _____ Seam _____
Core Interval _____ Seam _____

Property: Sunnyside
Sheet 1 of 15
Drilling Company: Boyles
Date Begun: 8/19/73
Date Completed: 10/18/73

RECEIVED
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DIVISION OF OIL
GAS & MINING

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
						Samples not taken 0-750'

RAISER STYLE CORPORATION
DRILL LOG

Property: Sunnyside

Hole Number: DH 29
Collar Elevation:
Determined by:
Total Depth:
Total Plug Footage:
Total Core Footage:
Core Interval _____ Seam _____
Core Interval _____ Seam _____
Core Interval _____ Seam _____

Sheet 8 of 15
Drilling Company:
Date Begun:
Date Completed:

T ___
R ___

N E

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
			705			
			710			
			720			
			730			samples not taken 0-750
			740			
			750			750-755 - Shale Begin Core 755-757 - Sandy Shale 757-758 - Sandstone
			760			758-759 - Sandy Shale 759-765 - Sandstone
			770			765-786 - Sandstone Laminai
			780			786-787 - Shale
			790			787-790 - Shale + Sandstone 790-796 - Sandstone
			800			796-798 - Sandy Shale

KAISER STEEL CORPORATION
DRILL LOG

Property: Sunnyside

Hole Number: DH 29
Collar Elevation:
Determined by:
Total Depth:
Total Plug Footage:
Total Core Footage:
Core Interval _____ Seam _____
Core Interval _____ Seam _____
Core Interval _____ Seam _____

Sheet 9 of 15
Drilling Company:
Date Begun:
Date Completed:

T ____
R ____

N E

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
			310			798-822 - Alternatin bands of SS / Sh.
			320			822-828 - Sh. with Coal streaks & Coal
						828-829 - Shale
			330			829-832 - Sandy shale
						832-834 - Shale with Coal lenses
						834-841 - Sandy Sh.
			340			841-842 - Sandstone
						842-846 - Shale Coaly
						846-849 - Sandy Shale
			350			849-854 - Shale Coaly
						854-860 - Sandy Shale Laminae
			360			860-863 - Shale with SS. bands
						863-868 - Sandy Shale
			370			
						868-878 - Sandstone fine grained
			380			
						878-896 - Sandy Shale
			390			
						896-900 - Sandstone
			400			

KAISER STEEL CORPORATION
DRILL LOG

Property: Sunnyside

T____
R____

N E

Hole Number: D.H. 29
Collar Elevation:
Determined by:
Total Depth:
Total Plug Footage:
Total Core Footage:
Core Interval _____ Seam _____
Core Interval _____ Seam _____
Core Interval _____ Seam _____

Sheet 10 of 15
Drilling Company:
Date Begun:
Date Completed:

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
						900-903 - Sandstone
						903-905 - Sandy Shale
			910			905-906 - Shale
						906-920 - Sandy Shale
			920			920-927 - Shale
						927-929 - Sandy Shale
			930			929-930 - Marbled SS. Coal lenses 1/4" in SS.
						930-950 - Sandy Shale
			940			
			950			950-956 - Shale
						956-960 - Shandy Sh.
			960			960-968 - Sandstone
						968-970 - Sandy Sh
			970			970-985 - Conglomerat
			980			985-987 - Shale
			990			
			1000			

KAISER STEEL CORPORATION

DRILL LOG

Property: Sunnyside

T____
R____

N E

Hole Number: DH 29
Collar Elevation:
Determined by:
Total Depth:
Total Plug Footage:
Total Core Footage:
Core Interval _____ Seam _____
Core Interval _____ Seam _____
Core Interval _____ Seam _____

Sheet 11 of 15
Drilling Company:
Date Begun:
Date Completed:

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
			1010			
			1020			
			1030			
						987-1100 Sandstone
						Castle Gate
			1040			
			1050			
			1060			
			1070			
			1080			
			1090			
			1100			

KAISER STEEL CORPORATION
DRILL LOG

Property: Sunnyside

Hole Number: D.H. 29
Collar Elevation:
Determined by:
Total Depth:
Total Plug Footage:
Total Core Footage:
Core Interval _____ Seam _____
Core Interval _____ Seam _____
Core Interval _____ Seam _____

Sheet 12 of 15
Drilling Company:
Date Begun:
Date Completed:

T ____
R ____

N E

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
						1100 - 1113 - Sandstone
			1110			1113 - 1118 - Shale
			1120			1118 - 1120 - Sandy Shale 1120 - 1123 - Marbleld
						1123 - 1129 - Sandstone
			1130			
						1129 - 1144 - Shale
			1140			
						1144 - 1148 - Marbleld
			1150			1148 - 1150 - Shale 1150 - 1152 - Sandy Shale 1152 - 1153 - Shale
			1160			1153 - 1162 - Marbled
						1162 - 1171 - Sandstone & Shale Laminated
			1170			1171 - 1175 - Shale
						1175 - 1180 - Marbleld
			1180			
						1180 - 1190 - SS. & Shale alternating Bands
			1190			
						1190 - 1202.6 Sandstone
			1200			

DRILL LOG

Property: Sunnyside

Hole Number: DDH 29

Sheet 13 of 15

Collar Elevation:

Determined by:

Total Depth:

Total Plug Footage:

Total Core Footage:

Core Interval _____ Seam _____

Core Interval _____ Seam _____

Core Interval _____ Seam _____

Drilling Company:

Date Begun:

Date Completed:

T ____

R ____

N E

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
						1202.6"-1203 - Coal 6"
						1203-1204 - Shale
						1204-1204.8" Coal 8"
			1210			1204.8-1214 Shale
						1214-1217 - SS. & Shale Marbled
			1220			1217-1223 - Laminated SS. & Shale
						1223-1224 - Shale
						1224-1225 - Sandy Shale
			1230			1225-1237 - Sandstone
						1237-1238 - Shale
			1240			1238-1244 - Sandstone
						1244-1248 - Shale
			1250			1248-1250 - Sandstone
						1250-1267 - Shale
			1260			
			1270			
						1267-1279 - Sandstone Laminated
			1280			1279-1281 - Conglamerate
						1281-1282.5 - Sandstone
						1282.5-1284 - Conglamerate Chips
						1284-1285 - Sandstone
						1285-1287 - Conglamerate Chips lenses
			1290			1287-1297 - Sandy Shale & Shale in alternating bands
						1297-1299.5 - Sandstone
			1300			1299.5-1300 - Bone Coal 6"

DRILL LOG

Property: Sunnyside

Hole Number: D.H. 29

Sheet 14 of 15

Collar Elevation:

Determined by:

Total Depth:

Total Plug Footage:

Total Core Footage:

Core Interval _____ Seam _____

Core Interval _____ Seam _____

Core Interval _____ Seam _____

Drilling Company:

Date Begun:

Date Completed:

T ____

R ____

N E

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
						1300-1302 Sandy Shale
						1302-1302.8 Coal 8"
						1302.8-1310 - Shale + Sandy Shale
			1310			1310-1311 - Coaly shale
						1311-1319 - Shale + Sandy Shale in alternating bands
			1320			1319-1320 - Sandstone
						1320-1327-7½" Shale + sandy shale
						1327-½-1329-1½" Coal & Bony Coal
			1330			1329-1335 - Shale + S. Shale in alternati Bands
						1335-1336 - Sandstone
			1340			1336-1337 - S. Shale
						1337-1339 - Sandstone
						1339-1342 - S. Shale
						1342-1343 - Sandstone
						1343-1348 - SS + Shale Bands
			1350			1348-1353 - Shale + S. Shale
						1353-1355 - Sandstone
						1355-1361 - Sandy Shale banded
			1360			1361-1362 - Shale
						1362-1364 - Coal 24"
						1364-1367 - Shale + sandy Shale
			1370			1367-1368 - Coal
						1368-1371 - Shale
						1371-1374 - Marbleld Sandstone
						1374-1384 - Sandy Shale
			1380			
						1384 - 1389'-9" banded SS/Sh
						1389'9" - 1389'10" Coal (1")
			1390			1389'10" 1389'-11¼" Sandy Shale
						1389'-11¼" 1390'-2¾" Coal (3.5")
						1390'-2¾" - 1391'-8¼" Shale + S. Shale
						1391'-8¼" - 1397'-6¾" Coal (5'-10.5")
						1397'-6¾" - 1398'-6¾" Coaly Shale
			1400			1398'-6¾" - 1399'-2¾" S. Shale

DRILL LOG

Property: Sunnyside

Hole Number: D.H. 29

Sheet 15 of 15

T____ R____

Collar Elevation:

Determined by:

Total Depth:

Total Plug Footage:

Total Core Footage:

Core Interval _____ Seam _____

Core Interval _____ Seam _____

Core Interval _____ Seam _____

Drilling Company:

Date Begun:

Date Completed:

N E

Hole Size	Type Sample	Core (%) Recovery	Depth	Log	Elev.	Geologic Description and Comments
	scale	charged				
						1399-2¾-1408'-2.5" shale
						1408'-2.5" - 1409' S. Shale w/ Coal
			1410			1409'-1411'-4.5" Coal (2'-4.5")
						1411'-4.5-1411'-5" Shale
						1411'-5" - 1411'-6" Coal (1")
						1411'-6" - 1411'-10¼" Shale
						1411'-10¼" - 1415'-¾" Coal (3'-2.5")
			1415			1415'-¾" - 1415'-1¾" Bone (1")
						1415'-1¾" - 1415'-4" Carbonaceous Shale
						1415'-4 - 1417'-1.25" Shale
						1417'-1.25" 1417'-7" Sh. Carb.
			1420			1417'-7" - 1419'6½" Coal (2'3.5")
						1419'6½" - 1419'7½" S.S. w/ Coal
						1419'7½" - 1425 S.S.
			1425			T.D. 1425

DDH-16

Date drilling Begun 2/17/53
Date Completed 3/28/53
Jones Core Drilling Co.
T 14 S, R 14 E, Sec. 6, SWSW
50' FEL, 150' FSL
Sunnyside Coordinates
N- 75,360
E- 42,180

Surface Elevation: 7662

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GAS & MINING

7662

10/5/83

DDH-16

229.0	1,444 – 1,673	Castlegate Sandstone

4.5	1,883.9 - 1,888.4	Sandy Shale
2.5 c	1,888.4 – 1,890.9	Coal
3.0	1,890.9 – 1,893.9	Sandstone
1.9 c	1,893.9 - 1,895.8	Coal
6.1	1,895.8 – 1,901.9	Sandy shale
2.4	1,901.9 - 1,904.3	Sandstone
0.5 c	1,904.3 - 1,904.8	Coal
16.1	1,904.8 - 1,920.9	Sandstone
0.7 c	1,920.9 - 1,921.6	Upper Sunnyside EL: 5741.1
1.7	1,921.6 - 1,923.3	Sandy Shale
3.3 c	1,923.3 - 1,926.6	Coal Upper Sunnyside EL: 5735.4 (BOT)
6.0	1,926.6 - 1,932.6	Sandy Shale
0.7 c	1,932.6 - 1,933.3	Coal
10.9	1,933.3 - 1,944.2	Sandy Shale
0.6 c	1,944.2 – 1,944.8	Coal (6) Depth: 1,944.2 EL: 5717.8
0.7	1,944.8 – 1,945.5	Shale
9.7 c	1,945.5 – 1,955.2	Lower Sunnyside Coal EL: 5706.8
18.1	1,955.2 – 1973.3	Sandstone, Sunnyside

TOTAL DEPTH: 1,973.3 EL: 5688.7

D.D.H. - 34

0-50	Surface Casing
60-280	SS. fg. very well indurated blue gray 80% MS. silty blue gray 20%
280-315	Claystone white 25% SS. mg. yellow brown, 10% SS. fg. friable, 45%
315-410	Sts. -> to silty M.s. gray - 40% SS. indurated pale gray - 60%
410-450	Claystone white 10% Sts -> v fg. SS. moderate to dark bluesh gray indurated - 45% SS. fg. friable - 35%
450-490	SS. fg. friable moderate gray
490-510	SS. as above - 40% SS. vfg. indurated gray - 40% Ms. gray - 20%

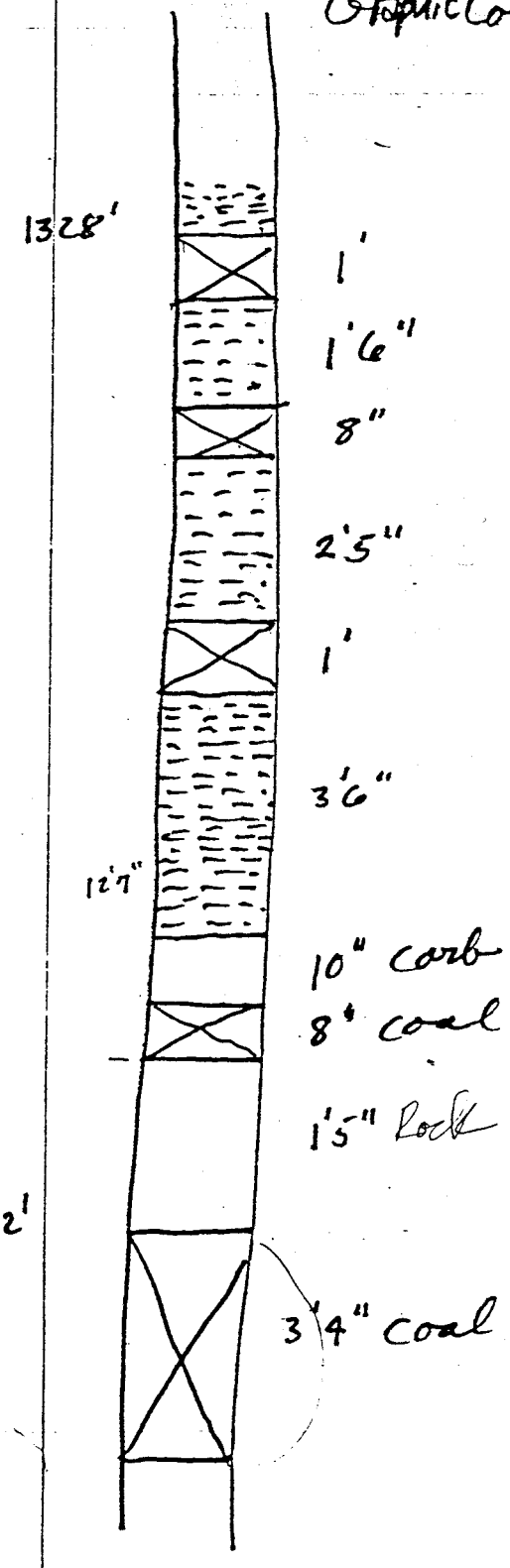
510-600	SS. fg. friable moderate gray
600-790	Ms. -> sts. - dark gray orange brown, moderate gray - 50% SS. as above - 40% SS. to sts. pale gray indurated 10%
790-1010	Sts. to Ms. - Indurated, verigated, lavender, moderate gray, yellow green, pale gray, and dark gray. Carbonacious Ms -> Sts. increasing downward - 75% SS. vfg. indurated 25% Trace of Coal between 980-1010
1010-1045	SS fg. friable moderate gray
1045-1100	Sts. -> Ms. as above
1100-1130	SS. f.g. as above 60% Ms. -> Sts. Carbonacious - 40%
1130-1280	SS. fg. friable moderate gray Castle gate Sandstone
1280-1328	Carbonacious Ms 40% SS. as above 60%

DDH - 34

1328 - 1329	Coal
329 - 1330'6"	Carb mudstone w/thin coal bands
330'6" - 1331'2"	Coal
331'2" - 1333'7"	Carb siltstone / mudstone
333'7" - 1334'7"	Coal
334'7" - 1338'1"	Carb - Mst w/sts bands
338'1" - 1338'11"	Carb mudstone
338'11" - 1339'7"	Coal
339'7" - 1341'	siltstone
341' - 1344'4"	Coal
344'4" - 1380'+	Sandstone

DH 34

Graphic Log From E-Log



1342
1328
14