



**Environmental GEO-Technologies, LLC**

June 30, 2015

Mr. Allan Batka  
**United States Environmental Protection Agency**  
**Region 5 (WU-16J)**  
77 West Jackson Blvd.  
Chicago, Illinois 60604

Re: EGT Monthly Report (in conformance with MI-163-1W-C010 & MI-163-1W-C011)

Dear Mr. Batka:

Environmental Geo-Technologies, LLC ("EGT") hereby timely submits its eighteenth Monthly Report in conformance with the requirements of its two EPA UIC permits (#s MI-163-1W-C010 & MI-163-1W-C011).

EGT is providing all of the attached information in the same sequence as required by both subject permits, i.e. Part II.D.1 (a – i), Part III, Attachment A, and Part III, Attachment E.G.2 & E.I.

We have incorporated the laboratory results for the "Hazardous Substances Limitations and Reporting" (pg. A-3 of 3 of each EPA UIC Permit) as the last page of this and each successive monthly report when EGT accepts F039 waste.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

We trust that you find this report satisfactory, however, if you have any questions or comments, please feel free to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard J. Powals".

Richard J. Powals, P.E.  
Vice-President

cc: J. Frost (EGT), T. Athans (EGT), P.Sullivan (EGT)

att.

rjp063015/EGTEPAMonthlyReport-May 2015

## **AVERAGE INJECTION RATE**

## Calculation of Average Injection Rate

CURRENT REPORTING YEAR 2015CURRENT REPORTING MONTH MAY

Date (month, year) of the first injection into either well at the Citrin Road Facility

NOVEMBER 2013

CURRENT MONTH (all volumes in gallons)

	Injected Waste	Injected Non-Waste	Total injected
MI-163-1W-C010 , Well #1-12			
Current Month	275,004	0	275,004
Since facility first injected			1,679,497
MI-163-1W-C011, Well #2-12			
Current Month	3,952	0	3,952
Since facility first injected			1,199,883
		Lifetime Combined	2,879,380

Conversion factors

365.25 days per year ÷ 12 months per year = 30.4375 days per month

30.4375 days per month × 1440 minutes per day = 43,830 minutes per month

CalculationsWhole number of months of injection 19

19 lifetime number of months of injection × 43,830 minutes/month  
 = 832,770 minutes of injection

Lifetime combined injected volume 2,879,380 × 832,770 minutes of injection  
 = 3.5 gpm average injection rate

## **WELL 1 DATA**

WELL 01 Monthly Data

Date	Min Injection Pressure (PSIG)	Max Injection Pressure (PSIG)	Min Sight Glass Level (in)	Max Sight Glass Level (in)	Min Annulus Pressure (PSIG)	Max Annulus Pressure (PSIG)	Min Injectate pH	Max Injectate pH	Min Flow Rate (GPM)	Max Flow Rate (GPM)	Min Differential Pressure (PSIG)	Max Differential Pressure (PSIG)
5/1/2015	-1.9	712.0	19.7	22.4	478.9	1153.9	6.3	7.9	6.3	63.8	281.8	1034.3
5/2/2015	72.8	76.4	19.8	20.1	1030.9	1051.1	7.2	7.2	0.0	0.0	957.8	975.3
5/3/2015	71.3	73.1	19.8	20.2	1019.6	1030.9	7.2	7.2	0.0	0.0	947.8	958.2
5/4/2015	-9.8	714.8	19.6	35.7	681.8	1156.8	6.3	7.6	8.5	110.0	148.6	1105.4
5/5/2015	-5.8	714.7	32.8	35.0	837.6	1153.8	6.6	8.4	3.7	78.9	285.6	1065.7
5/6/2015	23.7	707.0	32.7	35.0	893.3	1154.6	6.7	7.6	5.7	59.4	203.9	1057.1
5/7/2015	-3.9	715.0	32.7	35.7	700.6	1157.0	5.9	7.0	6.6	120.9	155.4	1105.7
5/8/2015	-9.9	713.4	32.7	35.7	853.1	1203.1	6.3	7.0	6.6	132.7	166.6	1108.0
5/9/2015	-0.5	0.4	33.3	33.7	926.1	956.7	6.7	6.8	0.0	0.0	925.8	957.0
5/10/2015	-0.5	0.4	33.3	33.6	917.8	926.2	6.7	6.7	0.0	0.0	917.5	926.5
5/11/2015	-0.4	707.7	33.2	35.4	890.1	1199.9	6.3	7.5	4.1	44.9	195.5	1073.8
5/12/2015	5.8	699.6	33.1	34.8	897.9	1200.2	6.5	7.3	4.2	177.5	372.5	1029.8
5/13/2015	-9.9	695.7	33.1	35.6	830.8	1207.4	6.4	7.2	2.7	57.6	219.4	1052.8
5/14/2015	12.2	642.8	33.1	33.9	897.4	1190.2	6.5	7.5	2.7	48.7	479.5	970.4
5/15/2015	0.9	724.3	33.1	34.8	879.4	1203.6	6.7	7.5	15.4	79.1	357.6	975.7
5/16/2015	-1.3	1.2	33.3	33.6	911.0	931.9	7.1	7.1	0.0	0.0	911.7	931.2
5/17/2015	-1.7	-0.7	33.3	33.7	904.9	911.0	7.1	7.1	0.0	0.0	906.1	912.3
5/18/2015	-1.9	-1.0	33.4	33.8	900.8	904.9	7.1	7.1	0.0	1.3	902.0	906.5
5/19/2015	-1.9	37.8	32.8	33.7	900.0	1020.3	7.1	7.8	0.0	114.2	901.4	1008.1
5/20/2015	0.4	1.4	32.7	33.0	992.1	997.0	7.2	7.2	0.0	8.8	991.0	996.3
5/21/2015	0.7	720.6	32.7	34.1	883.8	1202.8	6.5	7.6	5.3	105.5	374.6	991.4
5/22/2015	92.5	95.1	33.0	33.2	984.9	993.4	6.8	6.9	0.0	2.0	891.8	898.6
5/23/2015	91.4	93.2	32.9	33.2	980.1	985.0	6.8	6.8	0.0	11.3	888.1	892.4
5/24/2015	90.8	92.0	33.0	33.3	976.4	980.1	6.8	6.9	0.0	6.4	884.9	888.4
5/25/2015	90.1	91.3	33.0	33.3	973.0	976.5	6.9	6.9	0.0	1.9	882.2	885.6
5/26/2015	31.5	698.8	33.1	34.5	884.8	1200.7	6.9	7.7	3.0	53.9	361.4	944.1
5/27/2015	20.8	726.4	33.2	34.6	894.8	1206.7	6.9	7.5	10.5	72.6	345.5	939.9
5/28/2015	-0.6	26.9	32.9	33.7	900.9	1006.2	7.1	7.2	0.0	26.4	879.1	1002.2
5/29/2015	-3.0	738.1	32.9	35.5	794.6	1202.6	6.8	8.0	6.3	81.7	238.2	1005.4
5/30/2015	-1.5	-0.5	33.1	33.4	912.5	944.3	7.0	7.2	0.0	384.3	913.4	945.3
5/31/2015	-1.7	-0.9	33.0	33.3	904.6	912.5	6.9	7.0	0.0	245.1	905.7	914.0

## Circle Chart Index

Environmental Geo-Technologies, LLC 28470 Citrin Drive Romulus, MI 48174

### Chart Recorder #1

Channel #1

**Blue Pen** - Well 1 Injection Pressure

Channel #2

**Red Pen** – Well 1 Annulus Pressure

Channel #3

**Green Pen** – Well 1 Flow Rate

Channel #4

**Black Pen** – Well 1 Annulus Tank Level

### Chart Recorder #2

Channel #1

**Blue Pen** – Well 2 Injection Pressure

Channel #2

**Red Pen** – Well 2 Annulus Pressure

Channel #3

**Green Pen** – Well 2 Flow Rate

Channel #4

**Black Pen** – Well 2 Annulus Tank Level

### Chart Recorder #3

Channel #1

**Blue Pen** – Injection pH Well 1 & 2

Channel #2

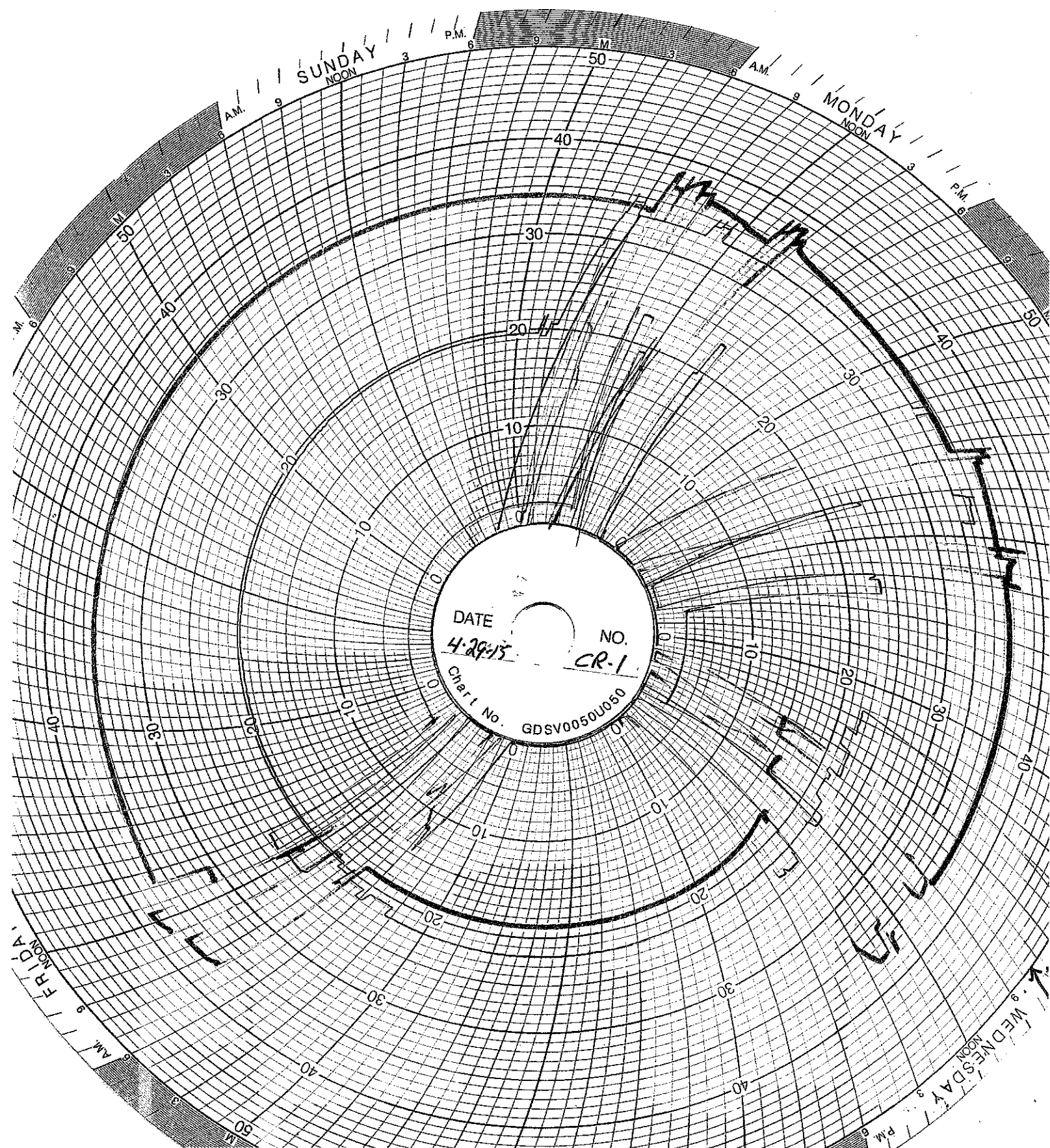
**Red Pen** – Well 1 Monthly Volume

Channel #3

**Green Pen** – Well 2 Monthly Volume

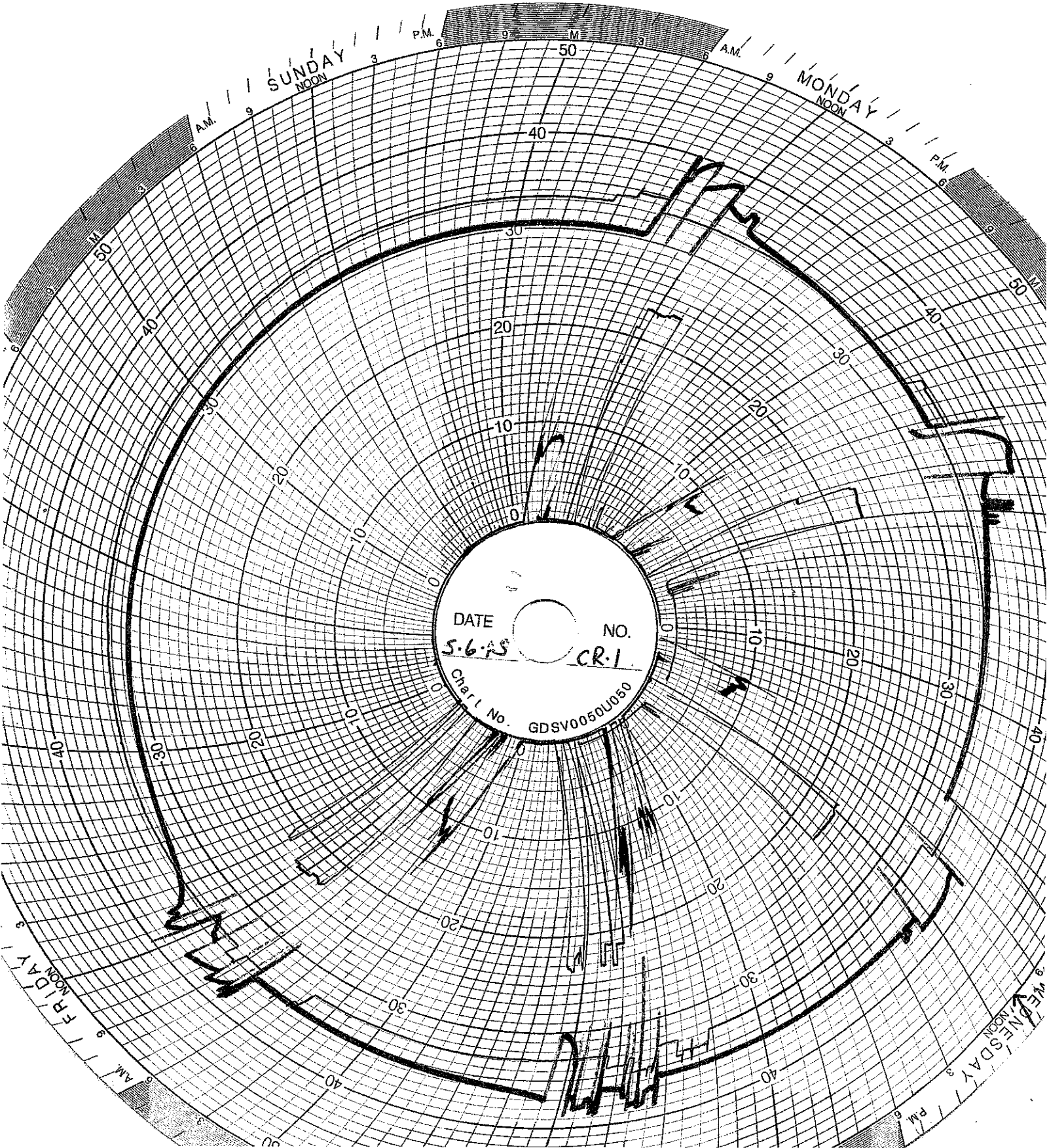
Channel #4

**Black Pen** - Temperature



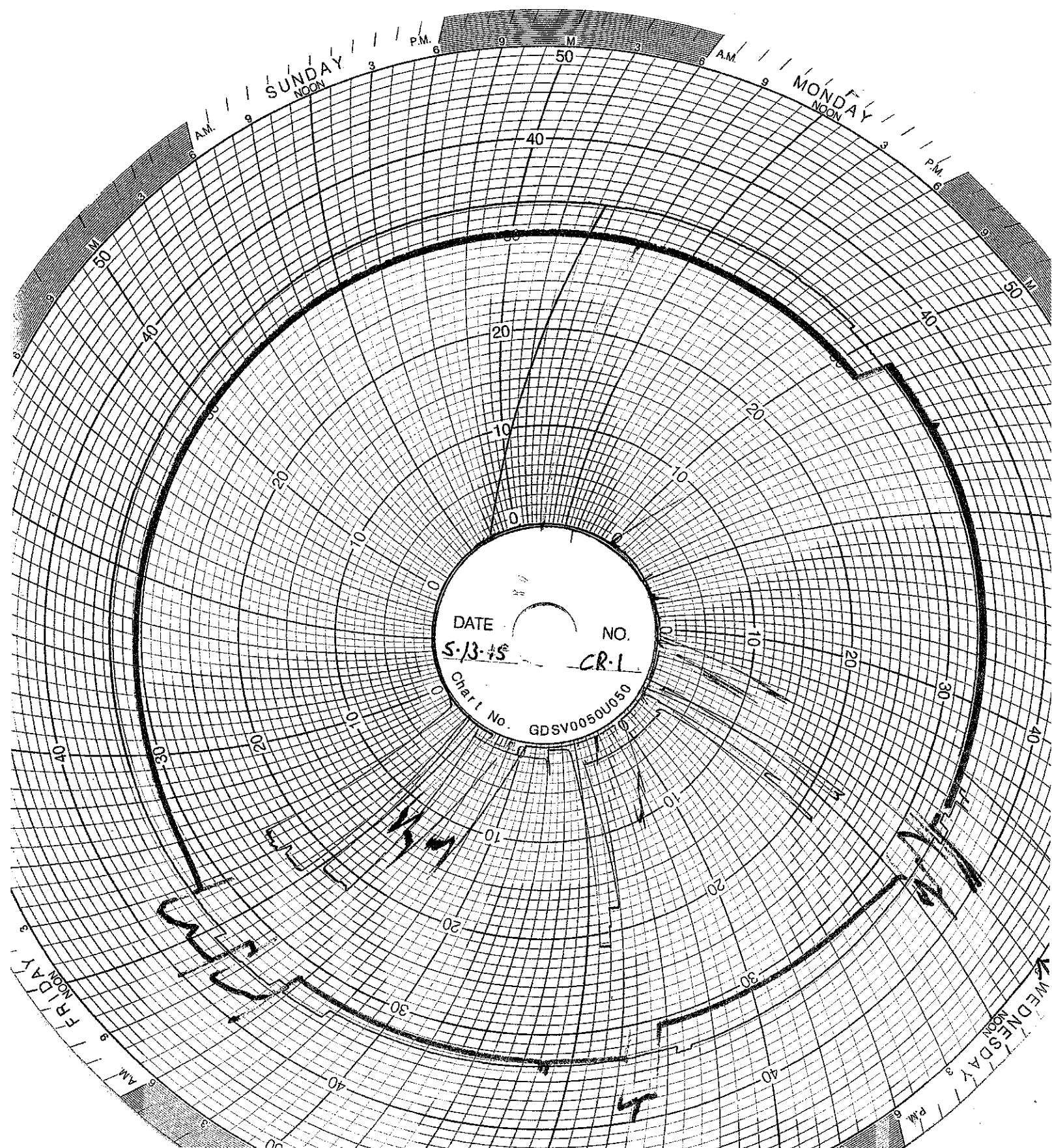
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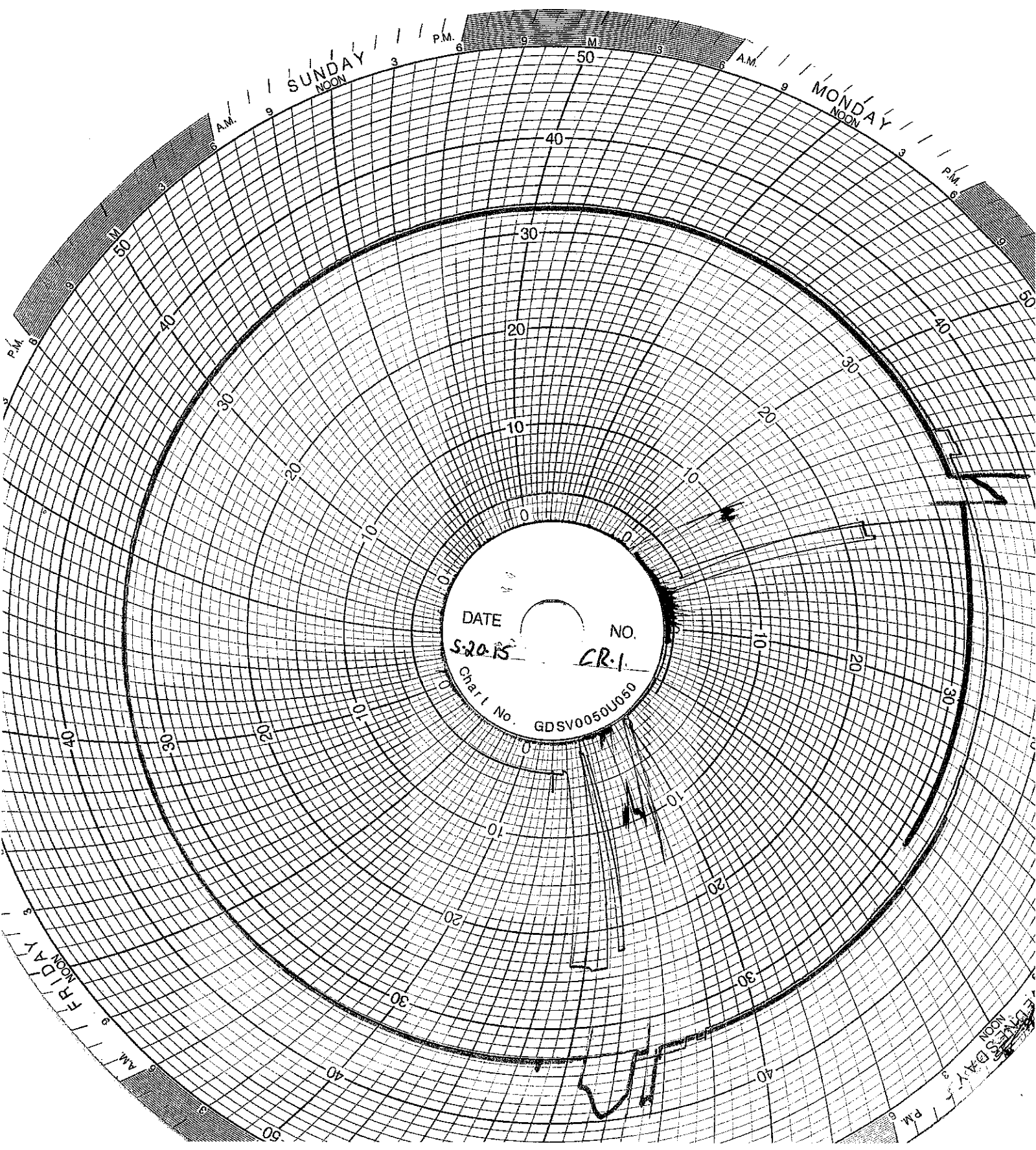
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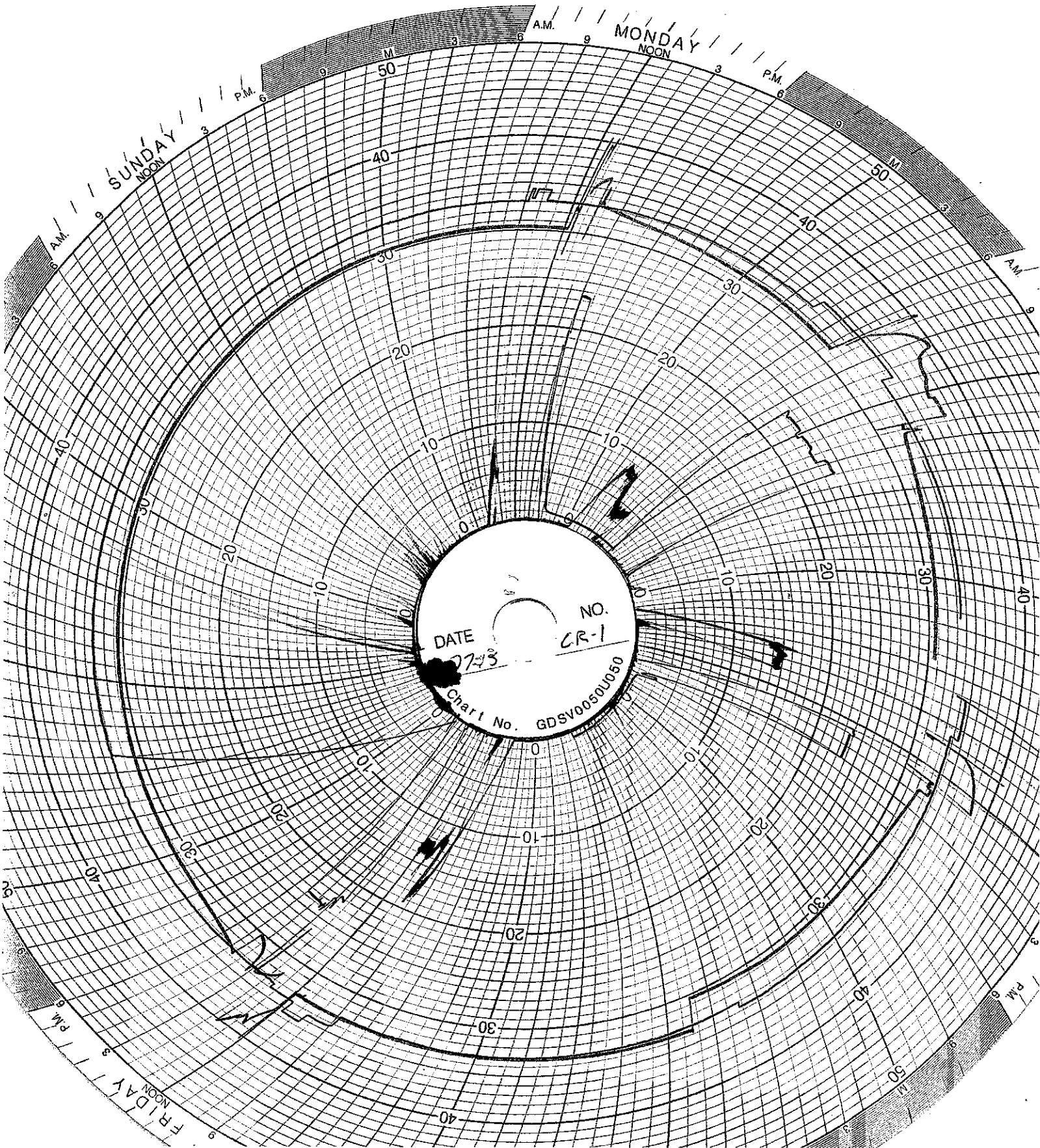
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DATE 5-20-85 NO. CR-1  
Chart No. GDSV0050U050



DATE 07-13  
NO. CR-1  
Chart No. GDSV0050U050

## **WELL 2 DATA**

Well 02 Monthly Data

Date	Min Injection Pressure (PSIG)	Max Injection Pressure (PSIG)	Min Sight Glass Level (in)	Max Sight Glass Level (in)	Min Annulus Pressure (PSIG)	Max Annulus Pressure (PSIG)	Min Injectate pH	Max Injectate pH	Min Flow Rate (GPM)	Max Flow Rate (GPM)	Min Differential Pressure (PSIG)	Max Differential Pressure (PSIG)
5/1/2015	-7.7	22.3	9.5	17.9	395.8	1106.8	6.3	7.9	0.0	0.0	397.5	1098.1
5/2/2015	1.7	4.0	9.2	10.5	281.8	613.0	7.2	7.2	0.0	0.0	280.1	610.3
5/3/2015	1.6	13.6	8.2	10.3	226.6	512.7	7.2	7.2	0.0	0.0	224.6	500.2
5/4/2015	-5.4	24.0	7.9	36.4	377.2	1046.4	6.3	7.6	0.0	0.0	373.8	1027.1
5/5/2015	5.2	24.3	29.9	32.7	552.6	1019.0	6.6	8.4	0.0	0.0	546.5	1005.6
5/6/2015	-1.4	25.6	28.0	30.2	501.6	939.1	6.7	7.6	0.0	0.0	495.0	923.6
5/7/2015	7.6	12.9	27.9	28.4	418.7	684.3	5.9	7.0	0.0	0.0	408.8	676.0
5/8/2015	-9.0	39.5	24.1	28.9	333.7	1227.7	6.3	7.0	0.0	0.0	321.5	1189.3
5/9/2015	9.4	11.7	25.4	25.5	365.0	654.4	6.7	6.8	0.0	0.0	355.5	642.7
5/10/2015	9.0	9.5	25.4	25.5	264.2	365.3	6.7	6.7	0.0	0.0	255.1	355.8
5/11/2015	9.0	32.5	22.1	25.5	254.4	914.4	6.3	7.5	0.0	0.0	245.0	886.9
5/12/2015	10.3	34.3	20.0	22.9	432.3	914.4	6.5	7.3	0.0	0.0	419.1	886.8
5/13/2015	10.4	12.7	20.0	20.8	414.3	676.6	6.4	7.2	0.0	0.0	403.2	665.3
5/14/2015	-1.3	33.4	17.7	20.5	374.7	911.5	6.5	7.5	0.0	0.0	362.9	883.7
5/15/2015	-6.7	32.2	16.3	18.5	452.4	914.3	6.7	7.5	0.0	0.0	456.6	900.0
5/16/2015	11.9	15.4	17.8	18.0	493.2	505.2	7.1	7.1	0.0	0.0	481.2	489.8
5/17/2015	11.0	12.0	17.8	18.0	485.8	493.5	7.1	7.1	0.0	0.0	474.7	481.6
5/18/2015	10.7	11.2	17.9	18.1	478.9	486.5	7.1	7.1	0.0	0.0	468.2	475.4
5/19/2015	10.5	10.8	17.5	18.3	471.7	479.6	7.1	7.8	0.0	0.0	461.1	468.8
5/20/2015	10.4	10.6	17.4	18.2	466.5	472.3	7.2	7.2	0.0	0.0	455.9	461.7
5/21/2015	10.4	15.0	17.6	18.1	462.7	467.0	6.5	7.6	0.0	0.0	450.0	456.5
5/22/2015	11.3	12.7	17.6	18.3	457.2	463.2	6.8	6.9	0.0	0.0	445.9	450.6
5/23/2015	10.9	11.4	17.6	18.4	452.6	457.9	6.8	6.8	0.0	0.0	441.6	446.6
5/24/2015	10.9	11.1	17.8	18.4	448.4	453.2	6.8	6.9	0.0	0.0	437.5	442.3
5/25/2015	10.9	11.1	17.9	18.0	444.8	449.1	6.9	6.9	0.0	0.0	433.8	438.1
5/26/2015	-1.4	12.8	17.5	18.3	437.5	445.4	6.9	7.7	0.0	0.0	430.1	441.7
5/27/2015	11.0	15.1	17.5	18.3	438.7	441.7	6.9	7.5	0.0	0.0	425.8	430.3
5/28/2015	11.4	12.9	17.9	18.1	435.5	439.4	7.1	7.2	0.0	0.0	424.0	426.5
5/29/2015	-1.9	355.2	17.9	18.2	428.3	701.0	6.8	8.0	2.5	90.9	262.4	546.8
5/30/2015	-1.6	-1.3	17.6	18.5	412.9	428.9	7.0	7.2	0.0	0.0	414.3	430.4
5/31/2015	-1.6	-1.4	17.7	18.4	408.2	413.4	6.9	7.0	0.0	0.0	409.6	414.9

## DATA DESCRIPTION

May 2015

This month's data is reported from the report generator. The data recorded from the foundation fieldbus requires manual observation by the deep well operators, who have been manually checking flow rate by displacement of tank volume over time. This is used to generate a multiplier for the purposes of reporting flow rates. An outside programmer was hired to troubleshoot and reset the foundation fieldbus parameters.

## Circle Chart Index

Environmental Geo-Technologies, LLC 28470 Citrin Drive Romulus, MI 48174

### Chart Recorder #1

Channel #1

**Blue Pen** - Well 1 Injection Pressure

Channel #2

**Red Pen** - Well 1 Annulus Pressure

Channel #3

**Green Pen** - Well 1 Flow Rate

Channel #4

**Black Pen** - Well 1 Annulus Tank Level

### Chart Recorder #2

Channel #1

**Blue Pen** - Well 2 Injection Pressure

Channel #2

**Red Pen** - Well 2 Annulus Pressure

Channel #3

**Green Pen** - Well 2 Flow Rate

Channel #4

**Black Pen** - Well 2 Annulus Tank Level

### Chart Recorder #3

Channel #1

**Blue Pen** - Injection pH Well 1 & 2

Channel #2

**Red Pen** - Well 1 Monthly Volume

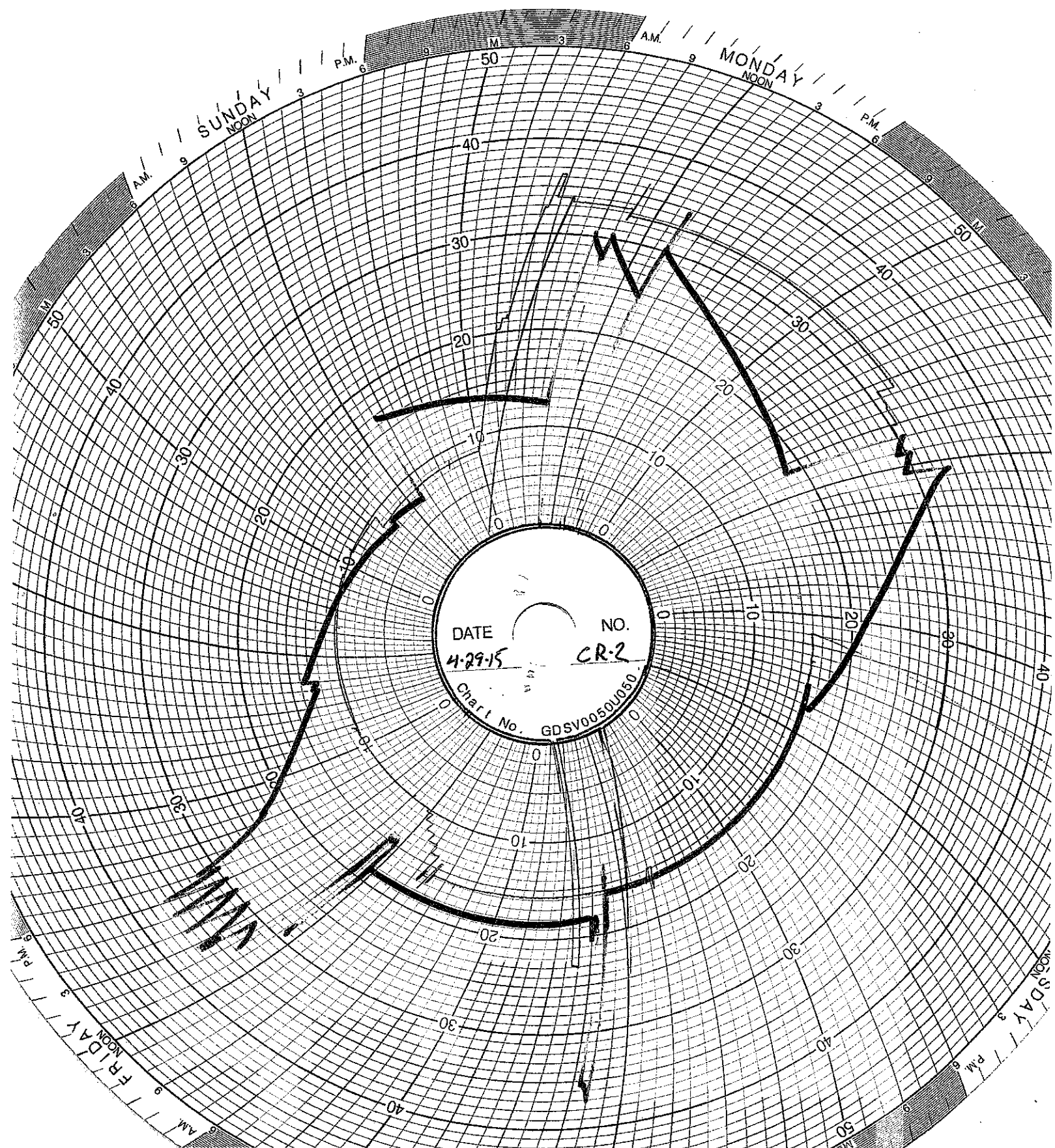
Channel #3

**Green Pen** - Well 2 Monthly Volume

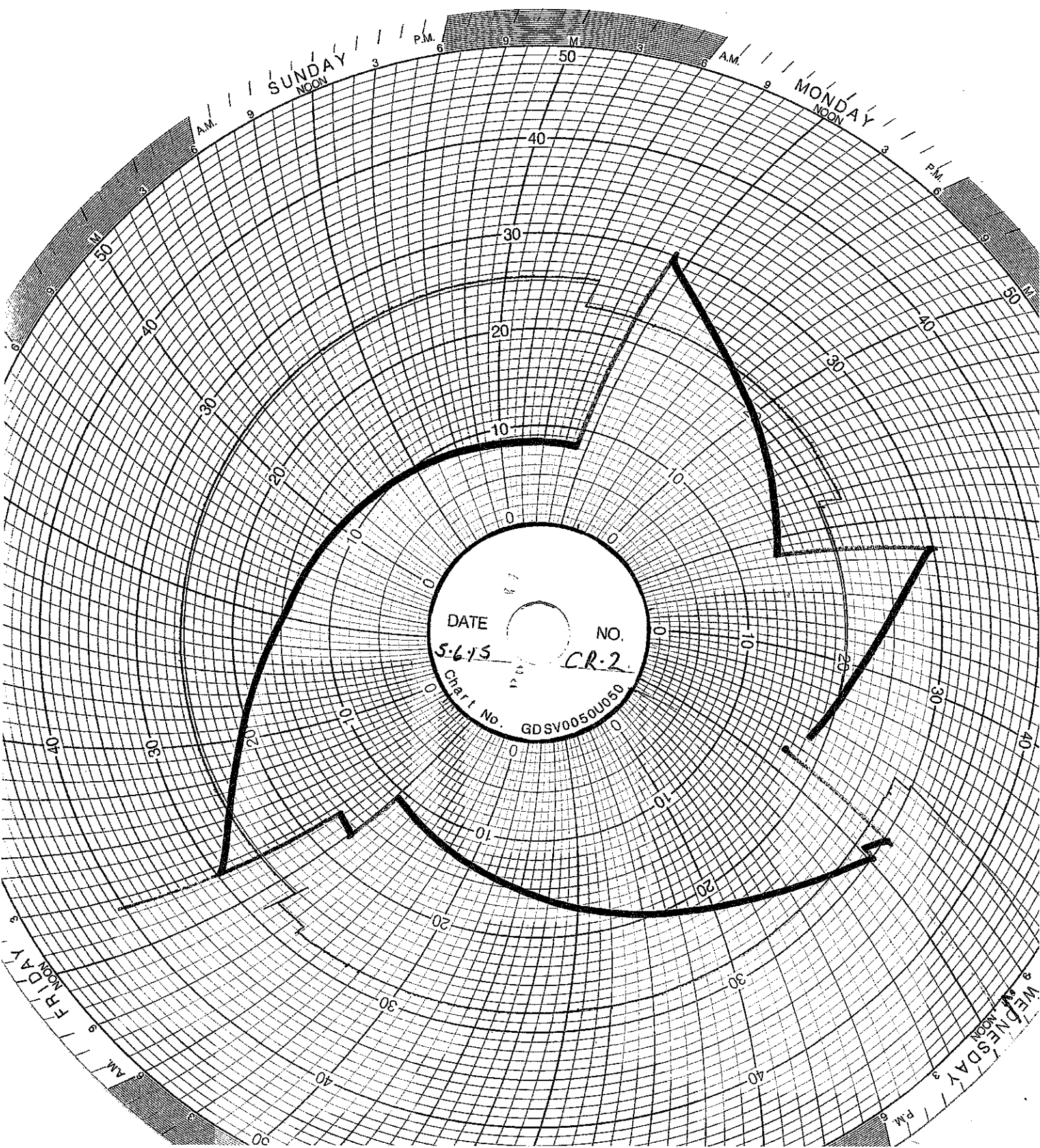
Channel #4

**Black Pen** - Temperature





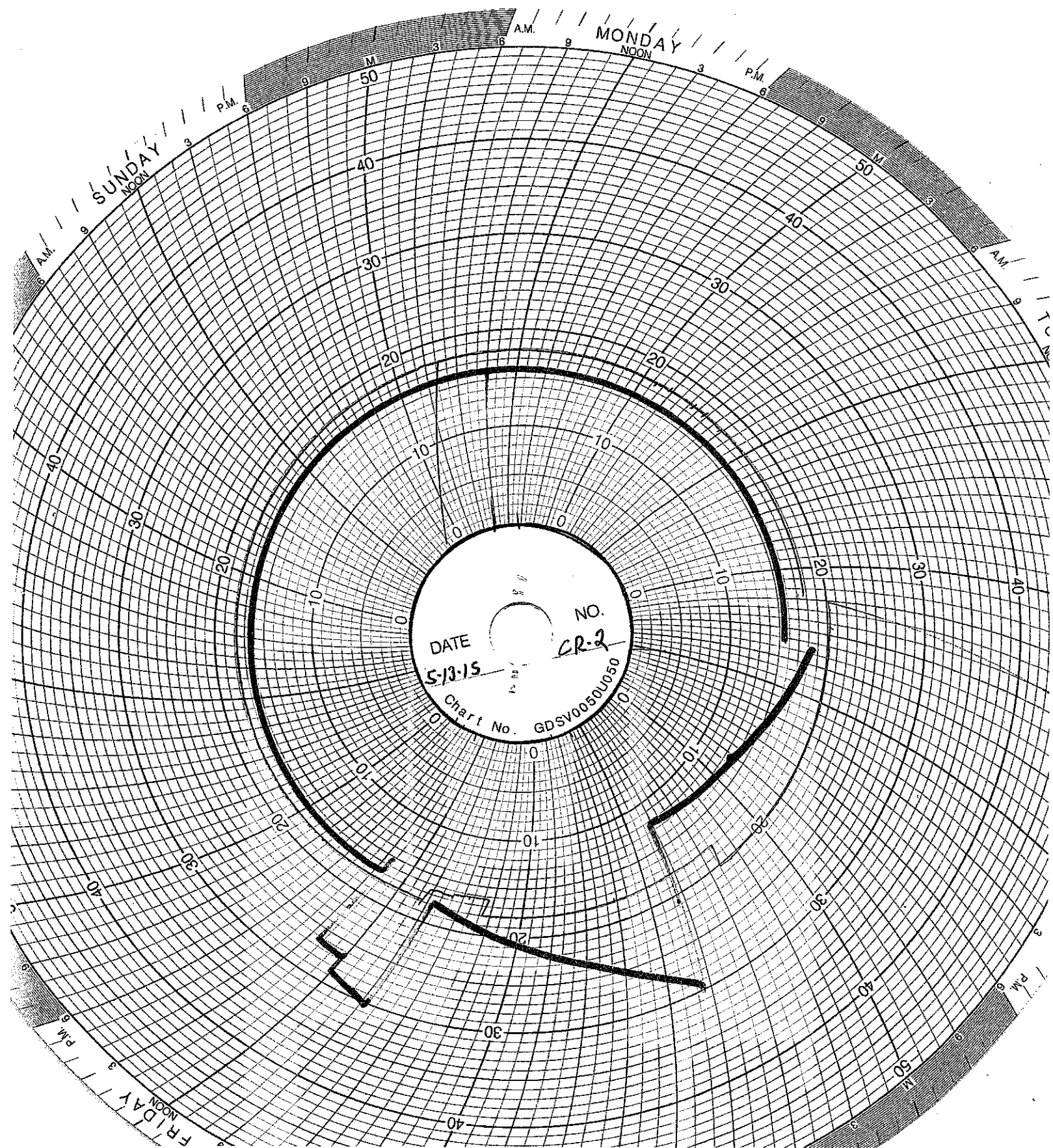


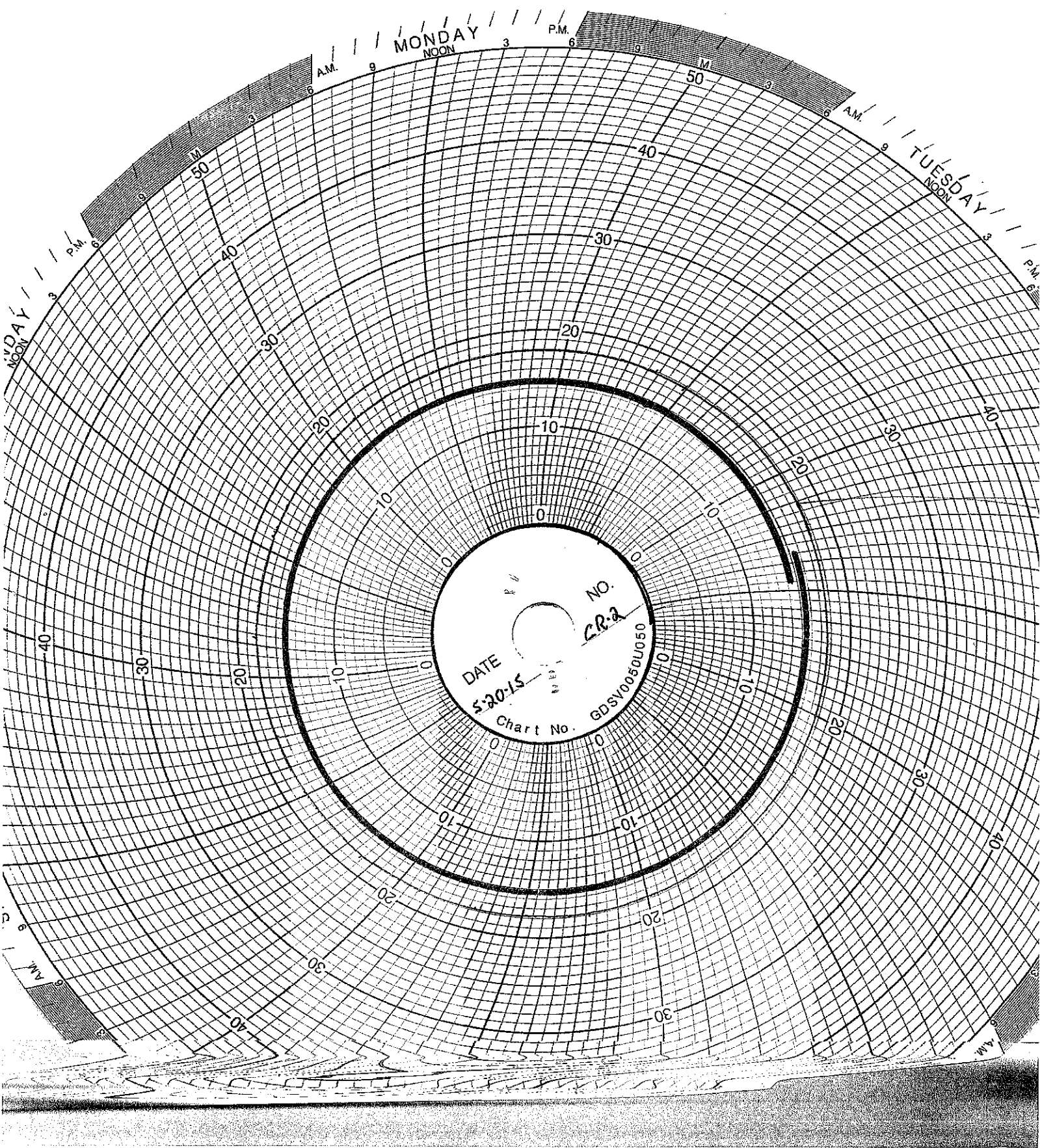


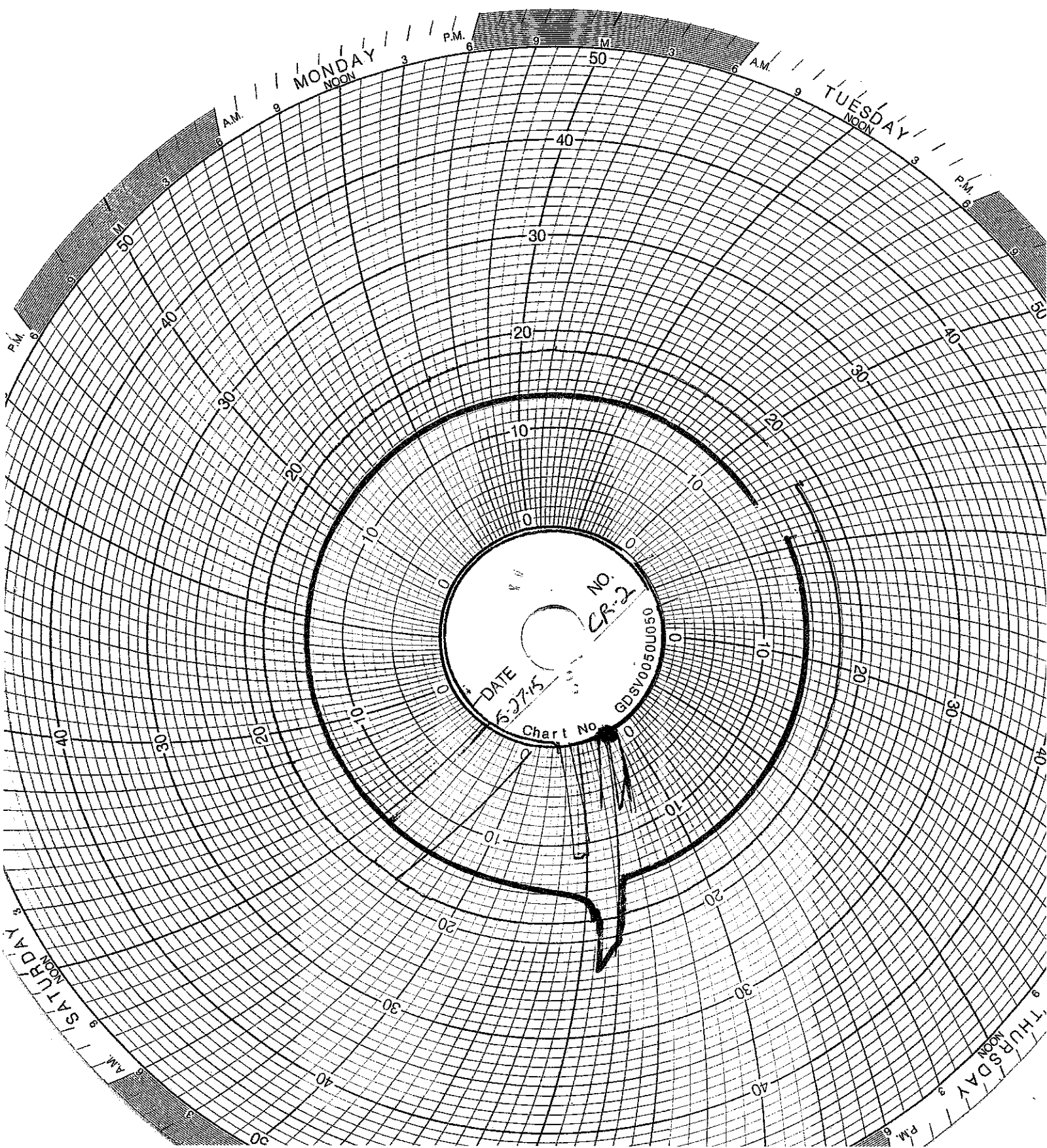
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CR-2

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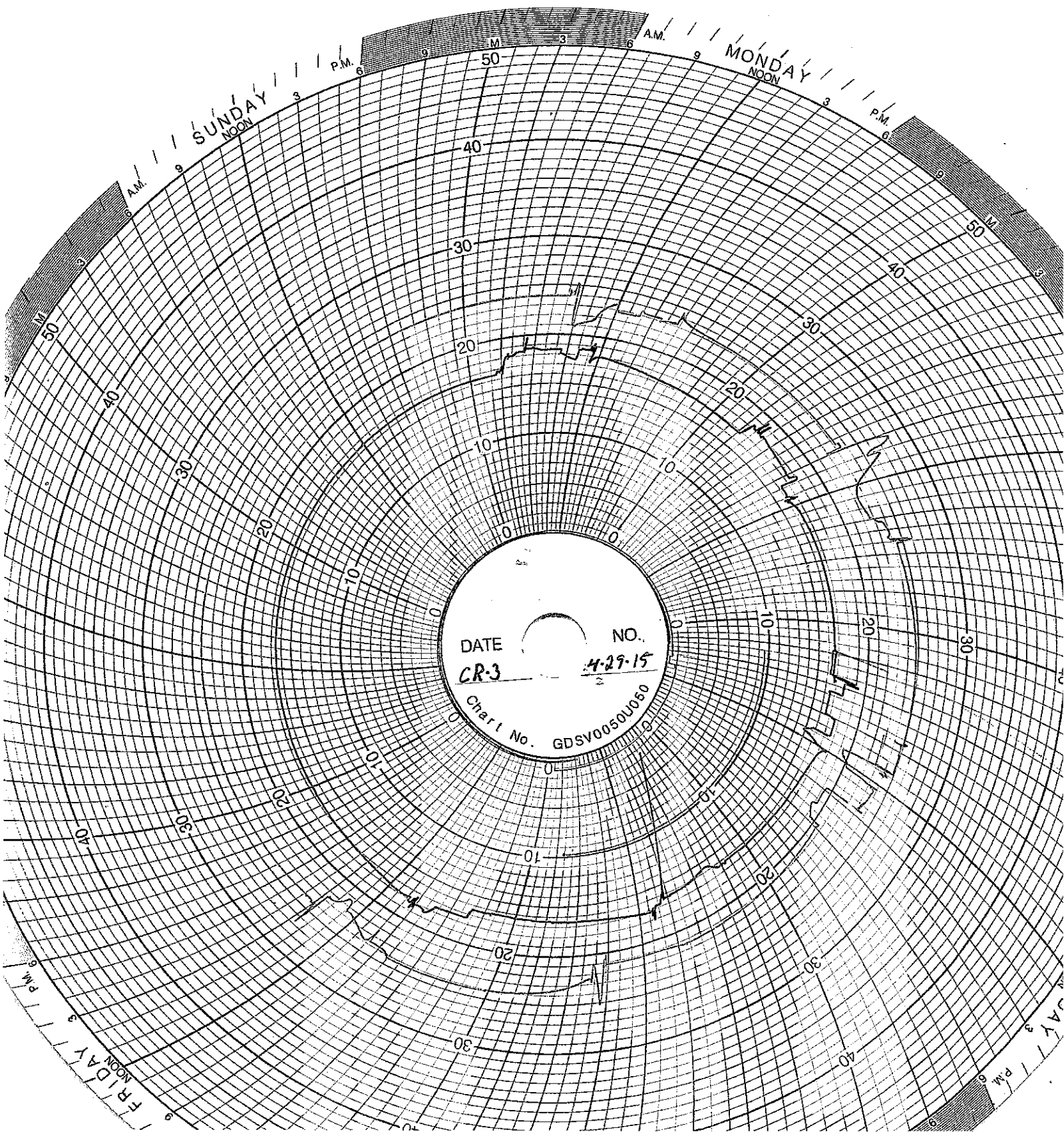






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DATE 8-27-15  
Chart No. GDSV00050U050





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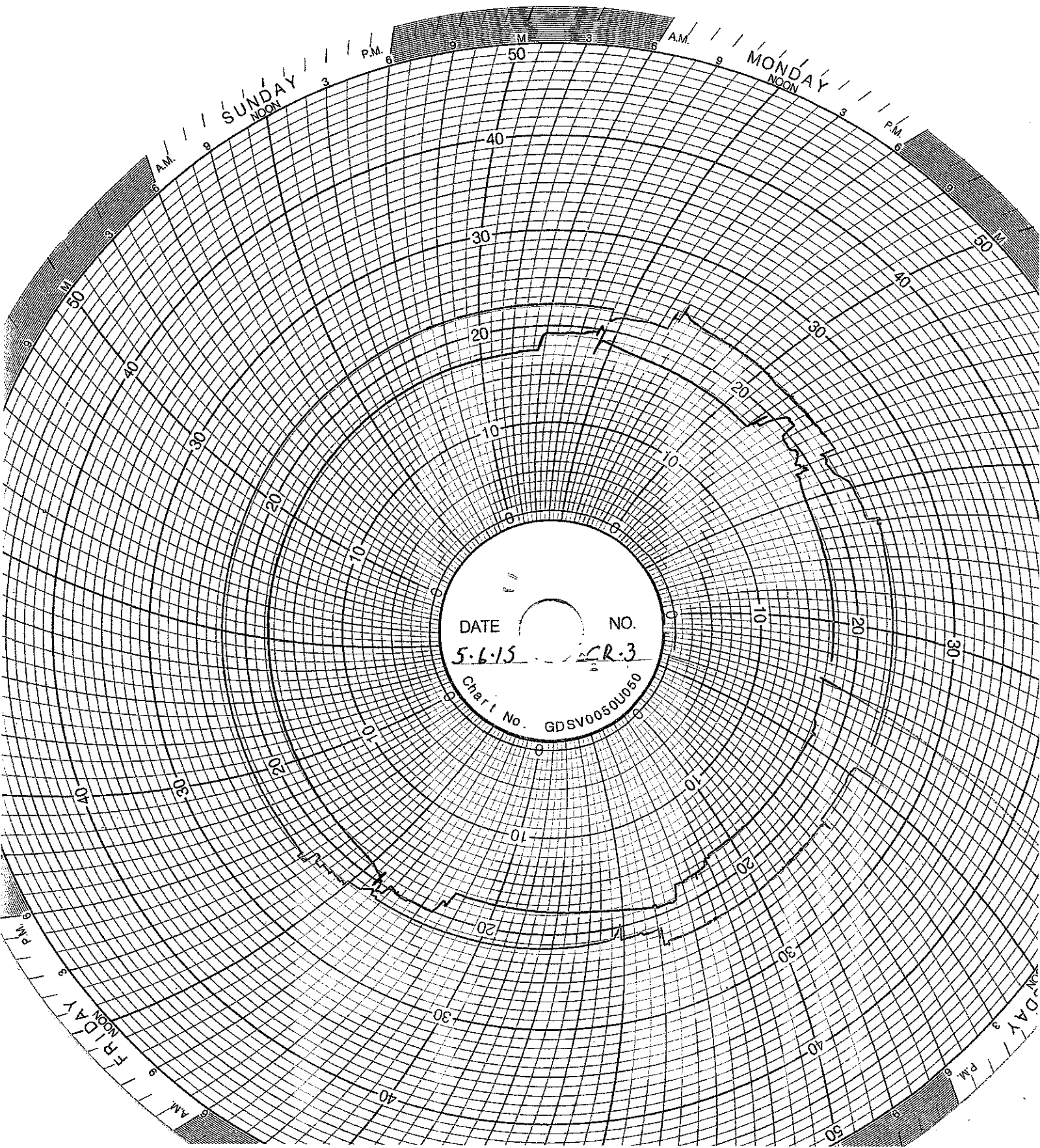
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NO.

4-29-15

Chart No.

GDSV0050V060



DATE

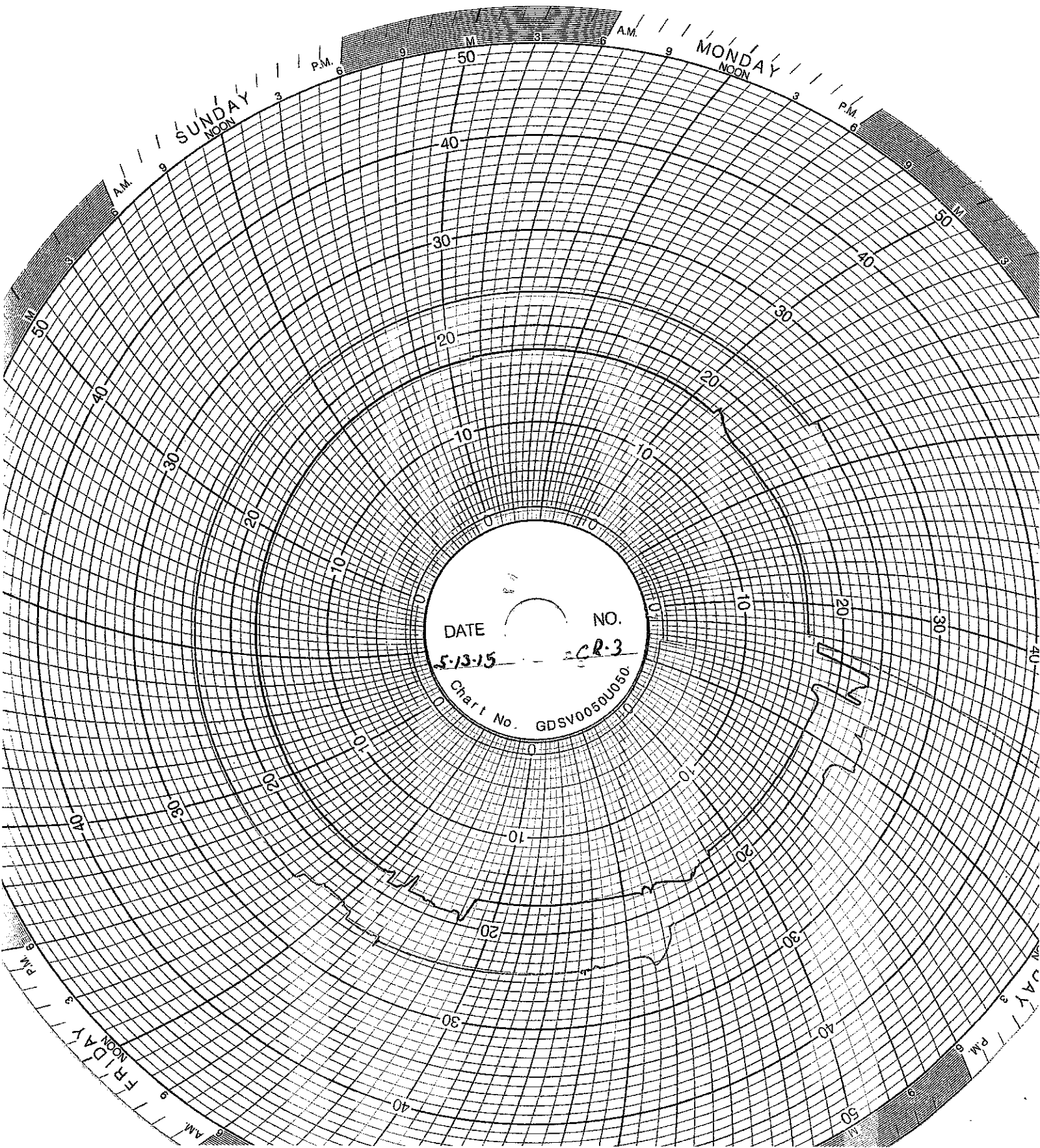
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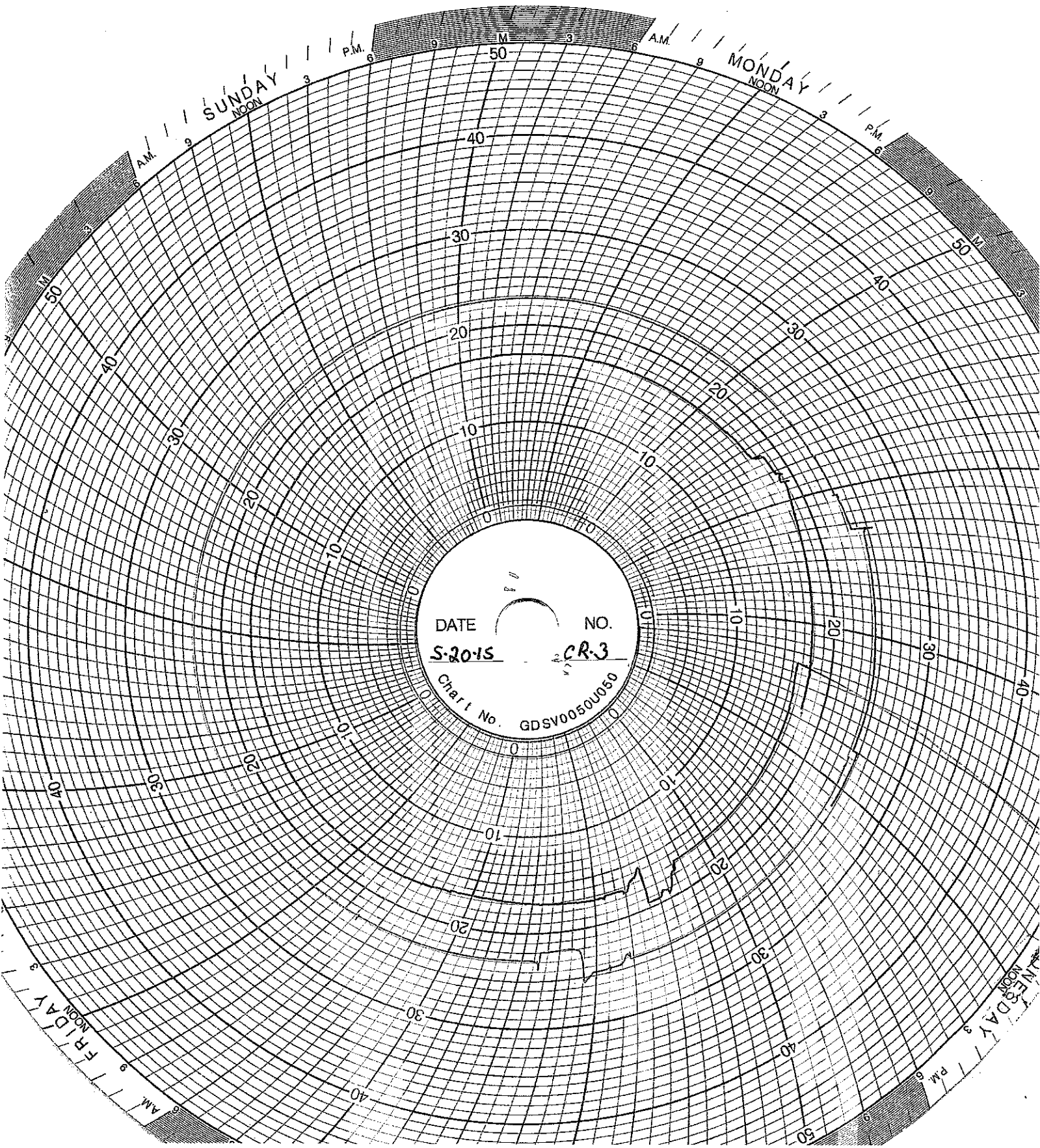
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CR-3

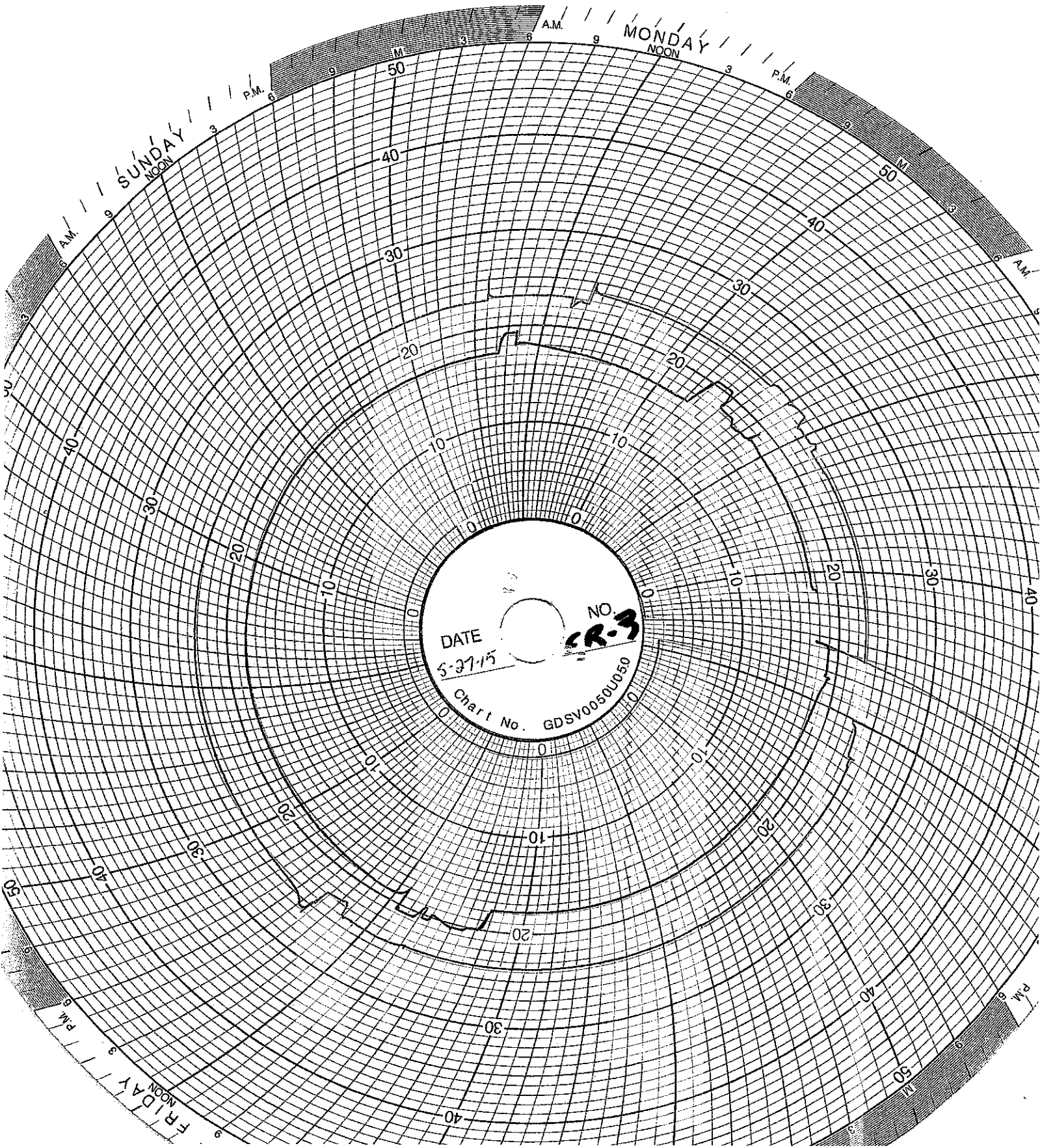
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DATE S-20-15 NO. CR-3  
Chart No. GDSV0050U50





DATE

5-37-15

NO.

CR-3

Chart No.

GDSV0050U050

## **MAINTENANCE LOG**

# UIC Monthly Maintenance Log

5/4/2015	AT-1 Tank	had 62.5 gallons of diesel fuel added
5/4/2015	AT-2 Tank	had 123 gallons of diesel fuel added
5/6/2015	Well 1&2	Flow tubes had the operational settings and parameters reentered into the foundation fieldbus
5/13/2015	Flow meter well 2	Flow tube was tested for resistance on its windings. Resistance was poor on each winding. New flow tube was ordered.

## **CORROSION MONITORING**

**CORROSION MONITORING PLAN**  
**COUPON SUMMARY**

Date	Hastelloy	Stainless Steel	Fiberglass	
	(C267)	(316L)	(Redbox)	
12/19/2013	13.330 g	10.848 g	7.309 g	Initial Mass @ start up
2/21/2014	13.329 g	10.846 g	7.306 g	
3/10/2014	13.327 g	10.845 g	7.300 g	
4/18/2014	13.324 g	10.841 g	7.272 g	
5/30/2014	13.328 g	10.818 g	7.226 g	
6/30/2014	13.321 g	10.337 g	7.196 g	
7/11/2014	13.323 g	10.304 g	7.196 g	
8/12/2014	13.328 g	10.045 g	7.182 g	
9/17/2014	13.321 g	9.997 g	7.090 g	
10/30/2014	13.321 g	9.387 g	7.075 g	
11/21/2014	13.320 g	9.386 g	7.069 g	
12/19/2014	13.321 g	9.315 g	7.084 g	
1/12/2015	13.321 g	9.289 g	7.063 g	
2/23/2015	13.339 g	9.286 g	7.005 g	New hastelloy coupon
3/31/2015	13.339 g	9.286 g	7.005 g	
4/27/2015	13.335 g	9.130 g	6.852 g	
5/21/2015	13.336 g	9.124 g	6.809 g	

## **CORROSION MONITORING COUPONS VISUAL DESCRIPTION**

**May 21, 2015**

### **Fiberglass Coupon**

The observation is the same as last Month. The coupon is dark orange (rust) in color with similar semi-smooth textures on both sides. Its cut edges appear sanded. The coupon is free of pits, cracks, swelling and blemishes.

### **Hastelloy Coupon**

This coupon is identified as C276 with Serial Number 5. This weighed coupon replaces the original coupon that was mangled in a pump and filter down after breaking off of its mounted location sometime in February. The coupon is silver in color with a lightly sandblasted texture. It is clean and free of pits, cracks, and blemishes.

### **Stainless Steel Coupon**

The coupon is silver in color with a pock-marked and corroded surface.

# Ghesquiere Plastic Testing, Inc.

20450 HARPER AVENUE  
HARPER WOODS, MI 48225  
PHONE (313) 885-3585  
FAX (313) 885-1771

Report Date: November 15, 2013

Test Date: October 15 - November 14, 2013

Report #1310-77651  
Performed for:  
Environmental Geo-Technologies  
28470 Citrin Drive  
Romulus, MI 48174

Attention: Mr. Don Anderson

## WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

## DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.

(P. O. #Credit Card).

## WORK PERFORMED:

Test specimen was prepared as necessary and conditioned for a minimum of 24 hours at standard laboratory conditions prior to testing.

Barcol Hardness test was performed in accordance with the procedures of ASTM D2583-13. One specimen was tested.

## RESULTS:

The following determination was made based upon the above test:

### BARCOL HARDNESS

#### Hardness

Specimen 1

90

Specimen is being returned with this report for further evaluation.

Ghesquiere Plastic Testing, Inc.

  
M. W. Ghesquiere  
President

MWG/kni

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TOTAL 1 PAGES

# Ghesquiere Plastic Testing, Inc.

20450 HARPER AVENUE  
HARPER WOODS, MI 48225  
PHONE (313) 885-3535  
FAX (313) 885-1771

Report Date: February 17, 2014  
Test Date: February 14 - 17, 2014

Report #1402-78036  
Performed for:  
Environmental Geo-Technologies  
28470 Citrin Drive  
Romulus, MI 48174

Attention: Mr. Don Anderson

## WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

## DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.

(P. O. #Credit Card).

## WORK PERFORMED:

Test specimen was prepared as necessary and conditioned for a minimum of 24 hours at standard laboratory conditions prior to testing.

Barcol Hardness test was performed in accordance with the procedures of ASTM D2583-13. One specimen was tested.

## RESULTS:

The following determination was made based upon the above test:

### BARCOL HARDNESS

#### Hardness

Specimen 1: 90

Specimen was returned to the client on February 17, 2014.

Ghesquiere Plastic Testing, Inc.

M. W. Ghesquiere  
President

MWG/dm

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TOTAL 1 PAGES



# Ghesquiere Plastic Testing, Inc.

20450 HARPER AVENUE  
HARPER WOODS, MI 48225  
PHONE (313) 885-3535  
FAX (313) 885-1771

Report Date: June 16, 2014  
Test Date: June 13 - 16, 2014

Report #1406-78499  
Performed for:  
Environmental Geo-Technologies, LLC  
28470 Citrin Drive  
Romulus, MI 48174

Attention: Mr. Don Anderson

## WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

## DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.

(P. O. #Credit Card).

## WORK PERFORMED:

Test specimen was prepared as necessary and conditioned for a minimum of 24 hours at standard laboratory conditions prior to testing.

Barcol Hardness test was performed in accordance with the procedures of ASTM D2583-13. One specimen was tested.

## RESULTS:

The following determination was made based upon the above test:

### BARCOL HARDNESS

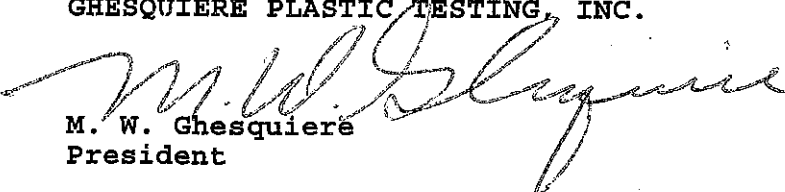
### Hardness

Specimen 1

85

Specimen was returned to the client June 16, 2014.

Ghesquiere Plastic Testing, Inc.

  
M. W. Ghesquiere  
President

MWG/dm

Testing. Development. Problem Solving.



October 2, 2014

## • TEST REPORT •

**PN 118325**

*PO Attn: John Frost*

### PLASTICS TESTING DEPARTMENT

Prepared For:

John Frost  
Environmental Geo-Technologies, LLC  
28470 Citrin Drive  
Romulus, MI 48174

Prepared By:

*Melissa Martin*  
Sfr. Project Technician

Approved By:

*Jim Drummond*  
Physical & Plastics Testing, Manager



An A2LA ISO 17025 Accredited Testing Laboratory — Certificate Numbers 255.01 & 255.02  
ISO 9001:2008 Registered

**ISO 9001:2008**  
Registered

\*Certificate Numbers 255.01 & 255.02

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[www.ardl.com](http://www.ardl.com)

2887 Gilchrist Rd. | Akron, Ohio 44305 | [answers@ardl.com](mailto:answers@ardl.com)  
Toll Free (800) 830-ARDL | Worldwide (330) 794-6600 | Fax (330) 794-6610

Testing. Development. Problem Solving.

October 2, 2014

John Frost  
Environmental Geo-Technologies, LLC

Page 2 of 2  
PN118325

**SUBJECT:** Barcol Hardness on one material.  
PO# Attn: John Frost

**RECEIVED:** One small section identified as; Fiberglass Coupon.

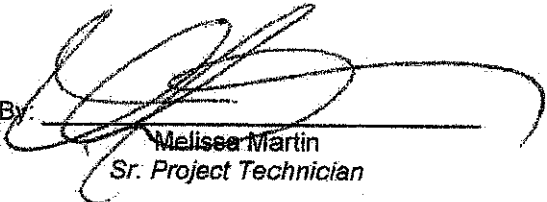
**BARCOL HARDNESS ASTM D 2583-13a**

**Results**

Barcol Hardness, Instant

97

Prepared By:

  
Melissa Martin  
Sr. Project Technician

Approved By:

  
Scott W. Yates  
Plastics Testing Assistant Manager

st

www.ardl.com

2887 Gilchrist Rd. | Akron, Ohio 44305 | answers@ardl.com  
Toll Free (800) 830-ARDL | Worldwide (330) 794-6600 | Fax (330) 794-6610

**INJECTION  
FINGERPRINTS**

**WASTE STREAMS  
CHARACTERIZATIONS**

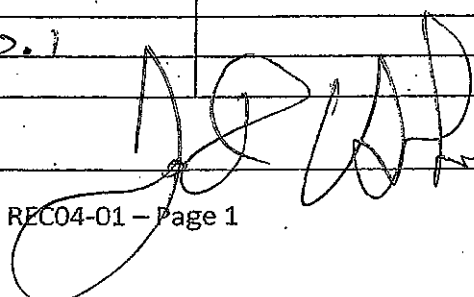
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/1/15
Receiving ID#	I 05011501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	W.H.

COPY

LAB INFORMATION		Office/Field Bins Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.2	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.07	TDS	5.7%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	64°F		
Conductivity	114.4 mS		
% Solids	5.7		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/1/13
Receiving ID#	105011502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	DAH

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.2	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.05	TDS	3.77
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	60°F		
Conductivity	73.7 mS		
% Solids	3.7		
Turbidity	Yes No		
Color (visual)			
TSS (%)	0.1		
Radiation Screen (as needed)			
Lab Signature			

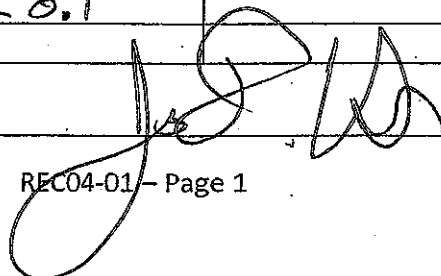
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/4/15
Receiving ID#	105041501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	R.H.

COPY

LAB INFORMATION		Oilfield Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	0.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	7.09
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	69°F		
Conductivity	140.9ms		
% Solids	7.0		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			



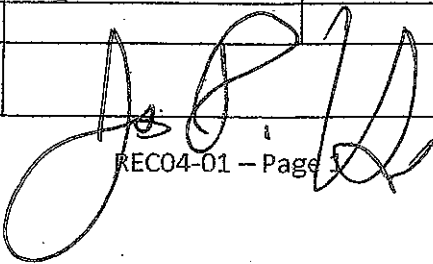
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/4/15
Receiving ID#	I 05041502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	QR

COPY

LAB INFORMATION		Oil Ref. Bins Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	0.9	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	7.12
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	70°F		
Conductivity	141.4 mS		
% Solids	7.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

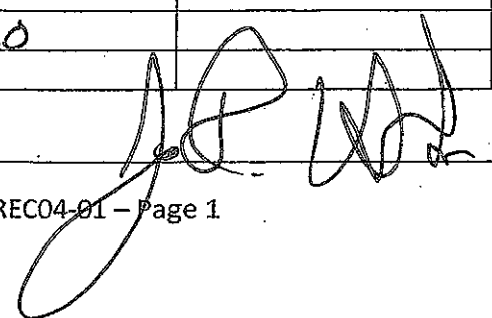
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/5/15
Receiving ID#	105051501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J. H.
Sampled by	J. H.

COPY

LAB INFORMATION		Other Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.6	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.03	TDS	2.1
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	64°F		
Conductivity	41.6 mS		
% Solids	8.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	6.0		
Radiation Screen (as needed)			
Lab Signature			

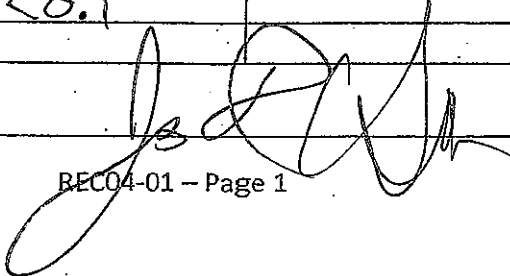
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## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/6/15
Receiving ID#	I05061501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	RR

COPY

LAB INFORMATION		Offfield Brines Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.4	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.05	TDS	3.12
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	62.3 mS		
% Solids	3.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

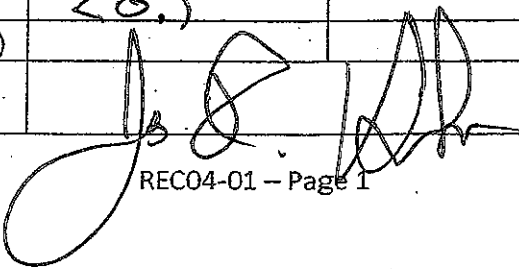
## FINGERPRINT FORM

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## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/7/15
Receiving ID#	I 05021501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	DM

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	5.37
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	66°F		
Conductivity	103.5ms		
% Solids	5.3		
Turbidity	Yes No		
Color (visual)			
TSS (%)	26.1		
Radiation Screen (as needed)			
Lab Signature			

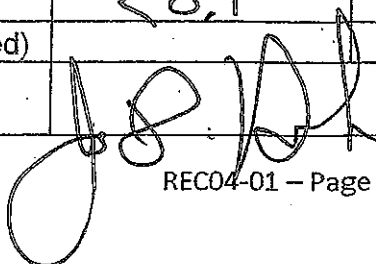
## FINGERPRINT FORM

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## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/7/13
Receiving ID#	I 05071502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	J.H.

COPY

LAB INFORMATION		Offfield Brines Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	0.2	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.26	TDS	7.39
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	72°F		
Conductivity	146.6 mS		
% Solids	7.3		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

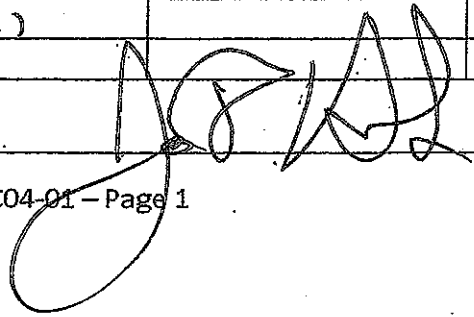
## FINGERPRINT FORM

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## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/8/15
Receiving ID#	105081502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	BP

COPY

LAB INFORMATION		Offical Results Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.2	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.14	TDS	7.27
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	77 °F		
Conductivity	143.6 mS		
% Solids	7.2		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

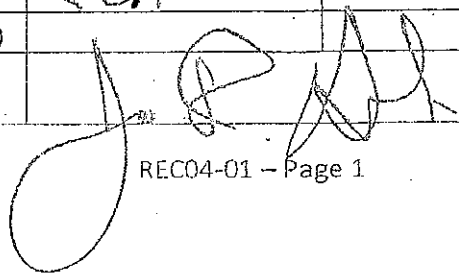
FINGERPRINT FORM

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RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	5/18/15
Receiving ID#	I 05081501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	PP

COPY

LAB INFORMATION		© Field Entries Only	
Compatible? (RT# )	(Yes) No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	0.5	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.13	TDS	19.72
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	70°F		
Conductivity	393.4 μS		
% Solids	19.7		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

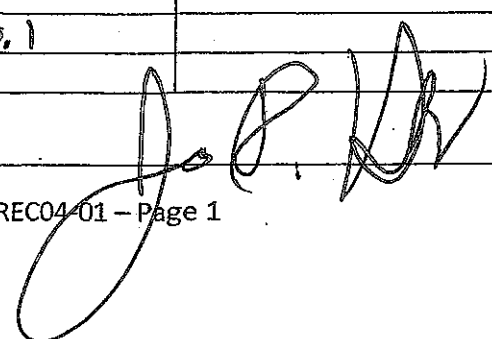
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/11/13
Receiving ID#	10511581
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	ML

COPY

LAB INFORMATION		Oilfield Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.0	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.06	TDS	4.72
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	72°F		
Conductivity	93.1 mS		
% Solids	4.7		
Turbidity	Yes No		
Color (visual)			
TSS (%)	20.1		
Radiation Screen (as needed)			
Lab Signature			



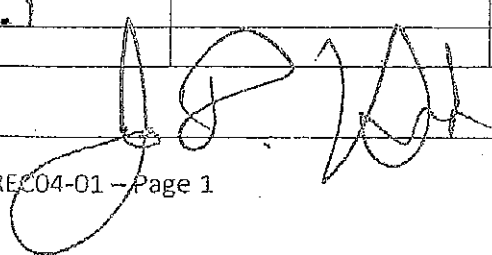
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/12/15
Receiving ID#	105121501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

COPY

LAB INFORMATION		Oilfield Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 146	Magnesium	
pH (S.U.)	1.0	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.16	TDS	5.47
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	75°F		
Conductivity	109.2 mS		
% Solids	5.4		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

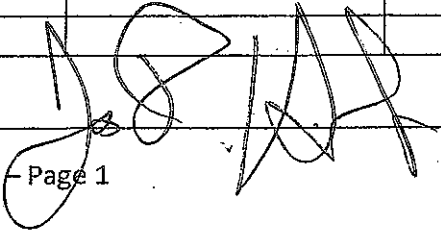
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	8/13/15
Receiving ID#	105131501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	JH
Sampled by	AK

COPY

LAB INFORMATION		Oilfield Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.5	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.17	TDS	6.4%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	82°F		
Conductivity	129.2 mS		
% Solids	6.4		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

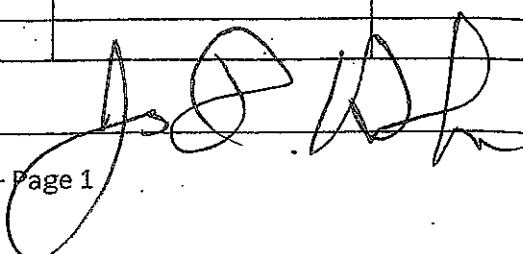
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/13/15
Receiving ID#	105131502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	S.H.
Sampled by	DR

COPY

LAB INFORMATION		Other/Brines Only	
All Waste Streams			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 190	Magnesium	
pH (S.U.)	1.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.02	TDS	2.6%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	64°F		
Conductivity	52.2 mS		
% Solids	2.6		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

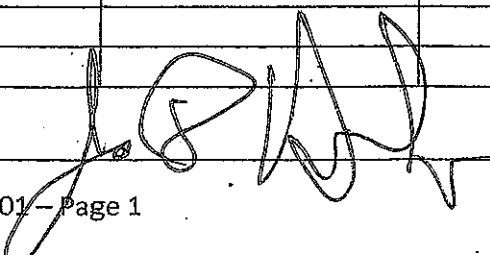
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/14/15
Receiving ID#	10514/501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	
Sampled by	SP JHL

COPY

LAB INFORMATION		Onfield Barries Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.07	TDS	5.79
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	114.2 mS		
% Solids	5.7		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

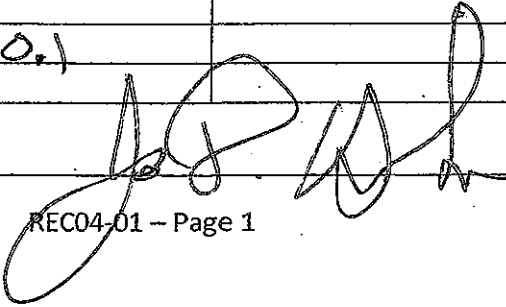
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	5/14/15
Receiving ID#	ID514/502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	88

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	0.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.10	TDS	6.87
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	71°F		
Conductivity	125.4 mS		
% Solids	6.8		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

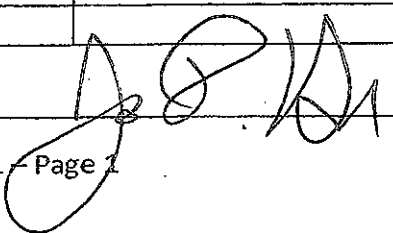
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/21/15
Receiving ID#	105211501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	PF

COPY

LAB INFORMATION		Oilfield Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.8	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.05	TDS	2.92
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	70°F		
Conductivity	57.4 mS		
% Solids	2.9		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

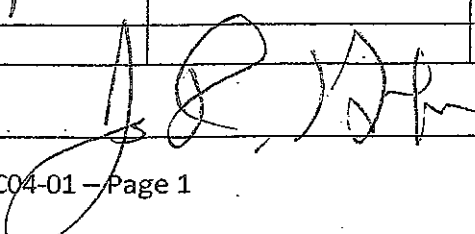
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/26/15
Receiving ID#	105261501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	JS

COPY

LAB INFORMATION		Oilfield Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.4	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.06	TDS	3.52
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	70°F		
Conductivity	68.7 mS		
% Solids	3.5		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

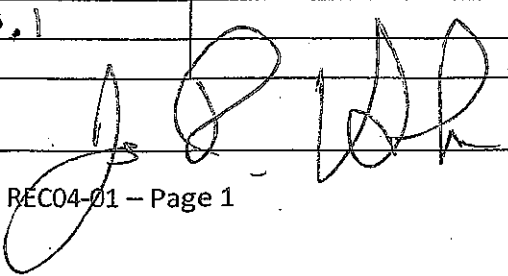
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	5/27/15
Receiving ID#	10527/501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	RR J.H.
Sampled by	

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	11	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.06	TDS	4.57
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	60°F		
Conductivity	90.7 mS		
% Solids	4.5		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			



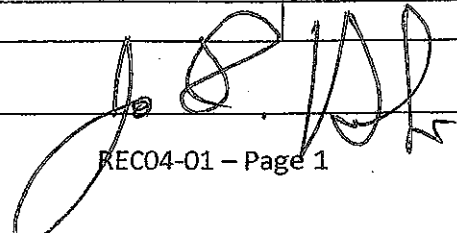
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/29/15
Receiving ID#	105291501
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	PS

COPY

LAB INFORMATION		Oilfield Brines Only	
All Waste Shipments			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.3	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.13	TDS	6.97
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	74°F		
Conductivity	138.7 mS		
% Solids	6.9		
Turbidity	Yes No		
Color (visual)			
TSS (%)	0.1		
Radiation Screen (as needed)			
Lab Signature			

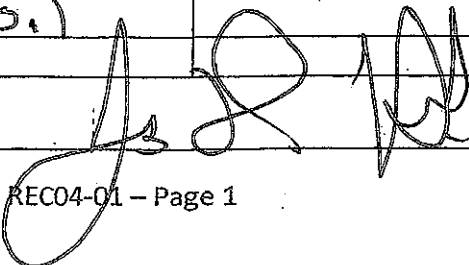
## FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/29/15
Receiving ID#	IOS 291502
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.M.
Sampled by	ML

COPY

LAB INFORMATION All Waste Shipments		Oilfield Brines Only	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.4	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.14	TDS	7.62
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	75°F		
Conductivity	151.0 ms		
% Solids	7.6		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

**ENVIRONMENTAL GEO-TECHNOLOGIES, LLC**

28470 Citrin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

**Generator Waste Profile**Profile # **00647****GENERATOR INFORMATION**

Name: [REDACTED] USEPA ID # [REDACTED]  
Facility: [REDACTED] SIC/NAICS Code: [REDACTED] State Code: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Contact: [REDACTED] Title: [REDACTED] Phone: ( [REDACTED] ) Fax: ( [REDACTED] )  
**BILLING** [REDACTED] ☐ SAME AS ABOVE

Company Name: [REDACTED]  
Address: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Attention: [REDACTED] Phone: [REDACTED] Fax: (248) [REDACTED]

**WASTE INFORMATION**

Name of Waste/Common Chemical Name:

Chromates (waste) Mix

Process Generating Waste (Please be specific, incomplete information may delay the approval process):

Metal processing & finishing industries**USEPA / STATE WASTE IDENTIFICATION**

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste  
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
3. List ALL Applicable Waste Codes: D007

**PHYSICAL CHARACTERISTICS OF WASTE**

<b>Color:</b> <input type="checkbox"/> White/Clear <input type="checkbox"/> Black/Brown <input checked="" type="checkbox"/> Other <u>RED</u>	<b>Suspended Solids</b> <input type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 % <input type="checkbox"/> 1-3 % <input checked="" type="checkbox"/> > 5 %	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input checked="" type="checkbox"/> 1.0 - 1.2 <input type="checkbox"/> 0.8 - 1.0 <input type="checkbox"/> 1.3 - 1.4 Exact / Other _____	<u>acceptable</u> <u>042815</u>
-------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

pH: ☐ NA ☒ ≤ 2 ☐ 2 - 4 ☐ 4 - 6 ☐ 6 - 8 ☐ 8 - 10 ☐ 10 - 12.5 ☐ ≥ 12.5Liquid Flash Point: ☐ <73°F ☐ 73 - 100°F ☐ 101 - 140°F ☐ 141 - 200°F ☐ >200°F ☒ None ☐ Closed Cup ☐ Open CupVOC CONCENTRATION - 0 PPM (MUST BE COMPLETED)**TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT ≥ 0.1%)**

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
Sodium Chromate	10	12	Water	99	75
Potassium Chromate	10	12			
Ammonium Chromate	5	10			

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge-provide backup

☐ Lab Analysis☒ Generator Knowledge☐ TCLP☒ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	<input checked="" type="checkbox"/>	_____ ppm	Aromatic Amine	<input checked="" type="checkbox"/>	_____ ppm
Dioxins	<input checked="" type="checkbox"/>	_____ ppm	Pesticides	<input checked="" type="checkbox"/>	_____ ppm
Cyanides Reactive	<input checked="" type="checkbox"/>	_____ ppm	Rodenticides	<input checked="" type="checkbox"/>	_____ ppm
Cyanides Total	<input checked="" type="checkbox"/>	_____ ppm	Fungicides	<input checked="" type="checkbox"/>	_____ ppm
Sulfides Reactive	<input checked="" type="checkbox"/>	_____ ppm			
Sulfides Total	<input checked="" type="checkbox"/>	_____ ppm			

Arsenic (As)	D004	<input checked="" type="checkbox"/>	< 5	ppm	_____ ppm
Barium (Ba)	D005	<input checked="" type="checkbox"/>	<100	ppm	_____ ppm
Cadmium (Cd)	D006	<input checked="" type="checkbox"/>	< 1	ppm	_____ ppm
Chromium (Cr)	D007	<input checked="" type="checkbox"/>	< 5	ppm	_____ ppm
Lead (Pb)	D008	<input checked="" type="checkbox"/>	< 5	ppm	_____ ppm
Mercury (Hg)	D009	<input checked="" type="checkbox"/>	< 0.2	ppm	_____ ppm
Selenium (Se)	D010	<input checked="" type="checkbox"/>	< 1	ppm	_____ ppm
Silver (Ag)	D011	<input checked="" type="checkbox"/>	< 5	ppm	_____ ppm

TCLP Organics D012 - D043 above regulatory limits: Present ☐ Not Present ☒

## IS WASTE ANY OF THE FOLLOWING?

At Least One Box Must Be Checked.

☐ Radioactive    ☐ Water Reactive    ☐ Oxidizer    ☐ Shock Sensitive    ☐ Reactive (other)    ☐ DOT Explosives  
☐ NIOSH Human-Positive Carcinogens    ☐ NESHAP Wastes (Benzene, etc.)    ☐ Biological    ☒ None Apply

## SHIPPING INFORMATION

- Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☒ Yes ☐ No
- Reportable Quantity (RQ) in pounds \_\_\_\_\_
- DOT Shipping Name RQ, Waste Ammonium Dichromate Hazard Class 5.1 UNNA 1439
- PG II ERG \_\_\_\_\_ Hazardous Constituents for "n.o.s." \_\_\_\_\_
- Method of Shipment: ☒ Bulk Tanker ☐ Vac truck ☐ Rail Car ☐ Drums ☒ Totes
- Number of Units to Ship Now: \_\_\_\_\_ 6. Anticipated Volume / Units per Year: \_\_\_\_\_ or ☐ One Time
- Special Handling Requirements including PPE: \_\_\_\_\_

## CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warrant in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: \_\_\_\_\_

Title: 4-21-15

Generator's Signature: \_\_\_\_\_

Date: 4-21-15

**GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologic representative.

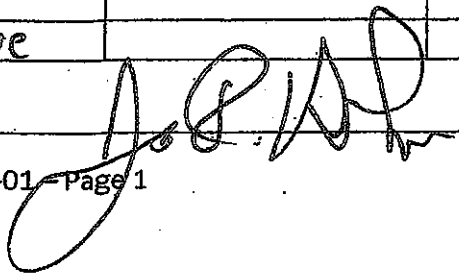
1. SAMPLING METHOD
2. COLLECTION POINT
3. SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER
- Sample No. \_\_\_\_\_ Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY Each person who handles the sample must sign below when the sample passes from one to another.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	4/23/15
Receiving ID#	Chromate Mix
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	Client

LAB INFORMATION		Oil and Bites Only	
Compatible? (RT# )	(Yes) No	Barium	
PCBs (ppm)(Oily Waste Only)?	N/A	Calcium	
TOC (ppm)(CC Waste Only)?	N/A	Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	6.7	Sodium Chloride	
Cyanides? (mg/L)	< 30	Bicarbonate	
Sulfides? (ppm)	< 200	Carbonate	
Specific Gravity	1.64	TDS	
Physical Description	liquid	Resistivity	
Stream Consistency	(Yes) No	Sulfate	
Oil in Sample	Yes (No)		
Temperature	61°F		
Conductivity	104.4 mS		
% Solids	65.6		
Turbidity	(Yes) No		
Color (visual)	Red		
TSS (%)	6.0		
Radiation Screen (as needed)	Negative		
Lab Signature			

**ENVIRONMENTAL GEO-TECHNOLOGIES, LLC**

28470 Citrin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

**Generator Waste Profile****Profile # 0065****GENERATOR INFORMATION**

Name: [REDACTED] USEPA ID # \_\_\_\_\_  
Facility Address: [REDACTED] SIC/NAICS Code: 332811 State Code: \_\_\_\_\_  
City: [REDACTED]  
Contact: [REDACTED] Title: \_\_\_\_\_ Phone: [REDACTED] Fax: ( ) \_\_\_\_\_

**BILLING INFORMATION**☐ SAME AS ABOVE

Company Name: [REDACTED]  
Address: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Attention: [REDACTED] Phone: [REDACTED] Fax: [REDACTED]

**WASTE INFORMATION**

Name of Waste/Common Chemical Name: Copper Stripping Solution

Process Generating Waste (Please be specific, incomplete information may delay the approval process): Copper stripping solution used to remove copper brazing from metal parts

**USEPA / STATE WASTE IDENTIFICATION**

1. This waste is considered to be: ☒ Non Hazardous Liquid Industrial Waste ☐ Hazardous Waste  
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
3. List ALL Applicable Waste Codes: 029L \_\_\_\_\_

**PHYSICAL CHARACTERISTICS OF WASTE**

<b>Color:</b> <input type="checkbox"/> White/Clear <input type="checkbox"/> Black/Brown <input checked="" type="checkbox"/> Other Blue	<b>Suspended Solids</b> <input checked="" type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 % <input type="checkbox"/> 1-3 % <input type="checkbox"/> > 5%	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input type="checkbox"/> 1.0 - 1.2 <input checked="" type="checkbox"/> 0.8 - 1.0 <input type="checkbox"/> 1.3 - 1.4 Exact / Other _____	<i>acceptable</i> <i>051515</i>
-------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

pH: ☐ NA ☐ ≤ 2 ☐ 2 - 4 ☐ 4 - 6 ☒ 6 - 8 ☐ 8 - 10 ☐ 10 - 12.5 ☐ ≥ 12.5Liquid Flash Point: ☐ <73°F ☐ 73 - 100°F ☐ 101 - 140°F ☐ 141 - 200°F ☒ >200°F ☐ None ☒ Closed Cup ☐ Open Cup

VOC CONCENTRATION - &lt;10 \_\_\_\_\_ PPM (MUST BE COMPLETED)

**TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >= 0.1%)**

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
Copper Stripping Solution Spent	95-99%		Copper	1-5 %	
	-	%		-	%
	-	%		-	%
	-	%		-	%

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge-provide backup

X Lab Analysis

X Generator Knowledge

x TCLP

☐ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	x	ppm	Aromatic-Amine	x	ppm
Dioxins	x	ppm	Pesticides	x	ppm
Cyanides Reactive	x	ppm	Rodenticides	x	ppm
Cyanides Total	x	ppm	Fungicides	x	ppm
Sulfides Reactive	x	ppm			
Sulfides Total	x	ppm			

Arsenic (As)	D004	x < 5	ppm	ppm
Barium (Ba)	D005	x < 100	ppm	ppm
Cadmium (Cd)	D006	x < 1	ppm	ppm
Chromium (Cr)	D007	x < 5	ppm	ppm
Lead (Pb)	D008	x < 5	ppm	ppm
Mercury (Hg)	D009	x < 0.2	ppm	ppm
Selenium (Se)	D010	x < 1	ppm	ppm
Silver (Ag)	D011	x < 5	ppm	ppm

TCLP Organics D012 - D043 above regulatory limits: Present ☐ Not Present ☒

## IS WASTE ANY OF THE FOLLOWING?

At Least One Box Must Be Checked.

☐ Radioactive    ☐ Water Reactive    ☐ Oxidizer    ☐ Shock Sensitive    ☐ Reactive (other)    ☐ DOT Explosives  
☐ NIOSH Human-Positive Carcinogens    ☐ NESHAP Wastes (Benzene, etc.)    ☐ Biological    ☒ None Apply

## SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☐ Yes ☒ No
2. Reportable Quantity (RQ) in pounds \_\_\_\_\_
3. DOT Shipping Name Non-Hazardous Liquid Hazard Class \_\_\_\_\_ UN/NA \_\_\_\_\_
- PG \_\_\_\_\_ ERG \_\_\_\_\_ Hazardous Constituents for "h.o.s." \_\_\_\_\_
4. Method of Shipment: ☐ Bulk Tanker ☐ Vac truck ☐ Rail Car ☒ XDrums ☐ Totes
5. Number of Units to Ship Now: 10 6. Anticipated Volume / Units per Year: 10 or ☐ One Time
6. Special Handling Requirements including PPE: \_\_\_\_\_

## CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization.

Printed Name: \_\_\_\_\_ Title: President

Generator's Signature: \_\_\_\_\_ Date: 5-15-15

**GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. \_\_\_\_\_ 2. \_\_\_\_\_
- SAMPLING METHOD COLLECTION POINT
3. \_\_\_\_\_
- SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER
4. Sample No. \_\_\_\_\_ Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY Each person who handles the sample must sign below when the sample passes from one to another.

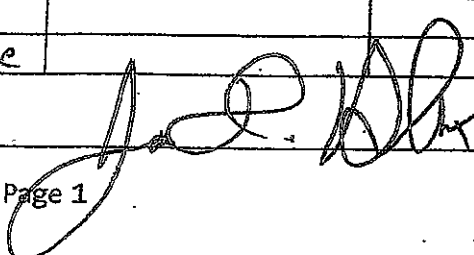
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

## FINGERPRINT FORM

00650  
ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/1/13
Receiving ID#	Waste Water
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	Client

LAB INFORMATION		OTHER ANALYSES ONLY	
Compatible? (RT# )	(Yes) No	Barium	
PCBs (ppm)(Oily Waste Only)?	N/A	Calcium	
TOC (ppm)(CC Waste Only)?	N/A	Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	9.4	Sodium Chloride	
Cyanides? (mg/L)	< 30	Bicarbonate	
Sulfides? (ppm)	< 200	Carbonate	
Specific Gravity	1.11	TDS	
Physical Description	liquid	Resistivity	
Stream Consistency	(Yes) No	Sulfate	
Oil in Sample	Yes (No)		
Temperature	69°F		
Conductivity	131.2 mS		
% Solids	6.4		
Turbidity	(Yes) No		
Color (visual)	Blue		
TSS (%)	< 0.1		
Radiation Screen (as needed)	Negative		
Lab Signature			





# Lakeland Laboratories, Inc.

8290 Pettysville Road  
Pinckney, MI 48169

Phone: (734) 878-3400  
FAX: (734) 878-3981

## Certificate of Analysis

Date: May 12, 2015

Customer: [REDACTED]

Project Name: [REDACTED]  
Project Number: 2557  
Submit Date: 5/5/2015  
Collection Date: 5/5/2015

Lab Sample ID: 10393-99727

Sample ID: #2: Copper Stripper

Parameters	Result	LRL	Units	Method Reference	Analysis Date	Analyst
<b>RIC Analysis</b>						
Reactive Cyanide	ND	50	mg/Kg	SW846 9014	5/8/2015	EDW
Reactive Sulfide	ND	50	mg/Kg	SW846 9030	5/8/2015	EDW
Flashpoint	XXXX	200	°F	SW846 1010	5/8/2015	EDW
pH	7.8	1-14		SW846 9045C	5/5/2015	LLW
<b>TCLP Metals Analysis</b>						
Arsenic	ND	0.5	mg/L	SW846 7060	5/11/2015	LLW
Barium	ND	0.5	mg/L	SW846 7081	5/11/2015	LLW
Cadmium	ND	0.5	mg/L	SW846 7130	5/11/2015	LLW
Chromium	ND	0.5	mg/L	SW846 7190	5/11/2015	LLW
Lead	ND	0.5	mg/L	SW846 7420	5/11/2015	LLW
Mercury	ND	0.1	mg/L	SW846 7471	5/8/2015	LLW
Selenium	ND	0.5	mg/L	SW846 7740	5/11/2015	LLW
Silver	ND	0.5	mg/L	SW846 7761	5/11/2015	LLW

Parameter- The analysis performed or name of the chemical analyzed.

Result- The reported concentration in the sample at or above reg level

LRL- Lower Reporting Level

Units- The unit which corresponds to the reported concentration

Method Reference- The method used to provide results.

Analysis Date- Date the analysis was performed

Analyst- Initials of the analyst performing the analysis

ND- Parameter not detected above the reported LRL

Reviewed By:

*Lorri White*

Date:

*5/12/2015*

# MSDS Document

## Product ALK-CU-Strip Part A

### 1. Chemical Product and Company Identification

#### Product ALK-CU-Strip Part A

**MSDS ID** 8860

**Manufacturer**

Philbro-Tech Inc.

65 Challenger Road

Ridgefield Park, NJ 07660

**Phone Number**

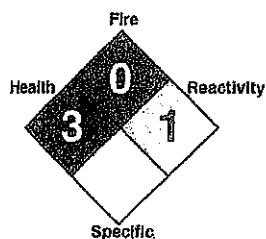
(201) 329-7300

**Emergency Phone**

CHEMTREC (800) 424-9300

CHEMTREC International (703) 527-3887

**Revision Date** 7/2/2008



### 2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
TRADE SECRET INGREDIENT	Trade Secret				
AMMONIUM HYDROXIDE	1336-21-6	25 %	25ppm (NH3)	50 ppm (NH3)	

### 3. Hazard Identification

**Ingestion**

This material may be harmful or fatal if swallowed. Corrosive and may cause severe and permanent damage to mouth, throat, and stomach. May cause vomiting.

**Inhalation**

Toxic by inhalation. May be fatal if inhaled. Corrosive. May cause irritation of the upper respiratory tract.

**Eye**

Corrosive to the eyes and may cause severe damage including blindness. Vapor may cause eye irritation.

**Skin**

Contact causes severe skin irritation and possible burns. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

Exposure may aggravate other pre-existing diseases, including diseases of the eyes, skin and lungs.

**4. First Aid Information****Eye**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.

**Skin**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash (or discard) clothing and shoes before reuse.

**Inhalation**

Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention.

**Ingestion**

If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

**5. Fire Fighting Measures**

LEL	15.75
UEL	26

The Flammable Limits are for ammonia vapor.

**Flammable Properties**

This material is not considered a fire hazard. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may form explosive mixture with air.

**Extinguishing Media**

Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Cool fire exposed containers with water spray. Exposure to extreme heat may cause containers to burst.

**Fire fighting instructions**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH

(approved or equivalent) and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

## 6. Accidental Release Measures

### Clean-up

Ventilate area of leak or spill. Remove all sources of heat or ignition. Vacuum or sweep up material and place in a disposal container. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. Do not flush to sewer.

## 7. Handling and Storage

### Handling

Wash thoroughly after handling. Use with adequate ventilation. Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing.

### Storage

Store in a cool place in original container and protect from sunlight. Store away from heat. Store away from incompatible materials. Keep container closed when not in use. Keep away from food and drinking water.

## 8. Exposure Controls and Personal Protection

### Engineering controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

### Respirators

A NIOSH-approved air purifying respirator with the appropriate cartridge or canister for the hazards may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

### Other clothing

Wear safety glasses with side shields (or goggles) and a face shield. Use gloves, and other body coverings, recommended for this material by manufacturers or suppliers based on test data showing adequate permeation and penetration resistance.

## 9. Physical and Chemical Properties

Physical State	Liquid
Specific Gravity	1.06
Color/Appearance	Colorless to Pale Blue
Odor	Strong Ammonia DO NOT SMELL
pH	~10
Boiling/Cond. Point	172-174 F

Solubility	Complete
Evaporation Rate	<1
Percent Volatile	80
Vapor Density	0.6
Vapor Pressure	95.1

## 10. Stability and Reactivity

### Thermal Stability

Stable under normal conditions of use and storage.

### Conditions to Avoid

Incompatibles. Exposure to heat. Direct sunlight.

### Hazardous Polymerization

Will not occur.

### Hazardous Decomposition Products

Thermal decomposition may release toxic ammonia fumes. Thermal decomposition releases oxides of nitrogen.

### Incompatibility

Acids, Acrolein, Dimethyl Sulfate, Halogens, Silver Nitrate, Propylene Oxide, Nitromethane, Silver Oxide, Silver Permanganate, Oleum, And Beta-Propiolactone. Most common metals.

## 11. Toxicological Information

### Carcinogen

NTP: No

IARC: No

OSHA: No

### TOXICITY DATA: (44 % AMMONIUM HYDROXIDE)

Oral Toxicity: LDLo: 43 Mg/Kg (Human)

Oral Toxicity: LD50: 350 Mg/Kg (Rat)

Oral Toxicity: LDLo: 750 Mg/Kg (Cat)

Eye Toxicity: SEV1 Mg/30S Rns (Rabbit)

Inhalation Toxicity: LDLo: 5000 Ppm (Human)

Inhalation Toxicity: TCLo: 700 ppm:Eye (Human)

Inhalation Toxicity: TCLo: 408 ppm:Irr (Human)

## 12. Ecological Information

Harmful to fish and other water organisms. Keep out of waterways.

LC50: 0.008 Mg/L 24H (Rainbow Trout)

LC50: 8.2 Mg/L 96H (Flathead Minnow)

LC50: 0.024 Mg/L 48H (Bluegill)

EC50: 0.66 Mg/L 48H (Water Flea)

## 13. Disposal Considerations

### Disposal Method

Dispose in accordance with applicable federal, state, local environmental and regulatory

requirements.

#### 14. Transportation Information

DOT Shipping Name: RQ, Ammonia Solutions, (10-30% Ammonia)  
DOT Hazard Class: 8  
Hazardous Ingredients: Ammonium Hydroxide  
Identification Number: UN 2672  
Packing Group: III  
Label: Corrosive

RQ is applicable when shipping 1000# or more ammonium hydroxide in one package.

NOTE: During an incident involving this material, Use Of DOT  
Emergency Response Guide No. 154 is also recommended.

#### 15. Regulatory Information

**Toxic Substances Control Act(TSCA)**  
Chemical ingredients are on the TSCA inventory.

**Superfund Reportable Quantity (RQ)**  
1000#/454 KG - Ammonium Hydroxide

**Hazardous Waste No.**  
Not Regulated.

**Sara Title III (Section 313)**  
This product contains ammonia and is subject to reporting as ammonia and ammonium ion  
on an ammonia basis = 1.6 Lb/Gal

**California Proposition 65 Warning**  
This product may contain chemicals known to the state of California to cause cancer, or birth  
defects or other reproductive harm.

**Canadian Lists**

**DSL/NDSL**  
Found on the Domestic Substances List.

**WHMIS**

Ammonium hydroxide: Item number 96, reporting at 1% threshold;

STATE LISTS: This product contains ingredients that are listed for disclosure or reporting in  
the states of California, Connecticut, Illinois, Louisiana, Massachusetts, North Carolina, New  
Jersey, New York, Pennsylvania, and Texas. Please check with the appropriate Agencies.

For States Not Listed: Please check with the appropriate agencies.

#### 16. Other Information

It is reasonable to assume that ammonia etchant compounds contain arsenic, cadmium,

chromium, and lead in concentrations ranging from a few parts per billion to several hundred parts per million. All information presented herein is given in good faith and is based on sources and tests considered to be reliable, but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product, as well as to determine the suitability of the product for a specific purpose. We make no warranty as to the results to be obtained in using the product; therefore all risks must be assumed by the user.

# MSDS Document

## Product ALK-CU-STRIP, PART B

### 1. Chemical Product and Company Identification

Trade Name of this Product ALK-CU-STRIP, PART B

Synonyms: SODIUM CHLORITE SOLUTION

MSDS ID 8870

**Manufacturer**

Phibro-Tech Inc.  
65 Challenger Road  
Ridgefield Park, NJ 07660

**Phone Number**

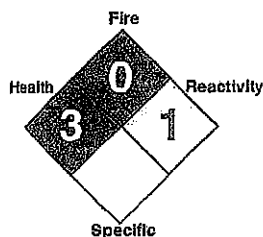
(201) 329-7300

**Emergency Phone**

CHEMTREC (800) 424-9300

CHEMTREC International (703) 527-3887

Revision Date 5/31/2006



### 2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
WATER	7732-18-5	69% - 78%			
SODIUM CHLORITE	7758-19-2	20 %			
SODIUM CHLORIDE	7647-14-5	16 %			
SODIUM SULFATE	7757-82-6	12 %			
SODIUM CHLORATE	7775-09-9	03 %			

### 3. Hazard Identification

EFFECTS OF OVEREXPOSURE:

SYMPTOMS OF INGESTION: CAUSES SEVERE BURNING OR IRRITATION OF THE



DIGESTIVE TRACT. SYMPTOMS MAY INCLUDE NAUSEA, VOMITING, ABDOMINAL PAIN, AND DIARRHEA. SWALLOWING MAY BE DIFFICULT AT FIRST, THEN ALMOST IMPOSSIBLE. EFFECTS ON THE ESOPHAGUS AND G.I. TRACT MAY RANGE FROM IRRITATION TO SEVERE CORROSION, TO DEATH.

SYMPTOMS OF INHALATION: LIQUID AND VAPOR IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. SYMPTOMS MAY INCLUDE COUGHING, SORE THROAT, AND SHORTNESS OF BREATH. IN SEVERE CASES, PULMONARY EDEMA MAY DEVELOP.

SYMPTOMS OF SKIN CONTACT: IRRITATING TO THE SKIN. SYMPTOMS MAY INCLUDE IRRITATION, REDNESS, AND PAIN TO SEVERE BURNS.

SYMPTOMS OF EYE CONTACT: MAY CAUSE IRRITATION, REDNESS, PAIN, BLURRED OR IMPAIRED VISION, DISCOLORATION, AND DAMAGE.

CHRONIC EXPOSURE: MAY AGGRAVATE OTHER PRE-EXISTING DISEASES, INCLUDING DISEASES OF THE EYES, SKIN, AND LUNGS.

#### **4. First Aid Information**

EYE CONTACT: IMMEDIATELY, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS APART. WASHING WITHIN A FEW SECONDS IS ESSENTIAL TO ACHIEVE MAXIMUM EFFECTIVENESS. GET IMMEDIATE MEDICAL ATTENTION AFTER FLUSHING.

SKIN CONTACT: WASH AFFECTED AREA THOROUGHLY WITH WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRER BEFORE REUSE. IF IRRITATION SHOULD DEVELOP, GET MEDICAL ATTENTION.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CONSULT A PHYSICIAN.

INGESTION: NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DO NOT INDUCE VOMITING. GIVE PLENTY OF WATER. IF SPONTANEOUS VOMITING OCCURS, KEEP AIRWAY CLEAR. GIVE MORE WATER WHEN VOMITING STOPS. GET IMMEDIATE MEDICAL ATTENTION.

NOTES TO PHYSICIAN: CHLORINE DIOXIDE VAPORS ARE EMITTED WHEN THIS CONTACTS ACID OR CHLORINE. IF THESE VAPORS ARE INHALED, MONITOR PATIENT CLOSELY FOR DELAYED DEVELOPMENT OF PULMONARY EDEMA WHICH MAY OCCUR UP TO 48-72 HOURS POST-INHALATION. FOLLOWING INGESTION, NEUTRALIZATION AND USE OF ACTIVATED CHARCOAL IS NOT INDICATED.

#### **5. Fire Fighting Measures**

MATERIAL IS NOT COMBUSTIBLE. WHEN DRY SUBSTANCE IS A STRONG OXIDIZER AND THE HEAT OF ITS REACTION WITH REDUCING AGENTS OR COMBUSTIBLE MAY CAUSE IGNITION. INCREASES THE FLAMMABILITY OF ANY COMBUSTIBLE MATERIAL.

FLASH POINT (DEG C): NA  
TEST METHOD: NA  
FLAMMABLE LIMITS (% BY VOL): NA  
AUTOIGNITION TEMP. (DEG C): NA

EXTINGUISHING MEDIA: ANY SUITABLE MEANS TO EXTINGUISH SURROUNDING FIRE. COOL DRUMS WITH WATER SPRAY.

SPECIAL FIRE FIGHTING PROCEDURES: USE SPECIAL BREATHING EQUIPMENT AND PROTECTIVE CLOTHING APPROPRIATE TO THE SURROUNDING FIRE.

UNUSUAL FIRE OR EXPLOSION HAZARDS: THERMAL DECOMPOSITION RELEASES TOXIC CHLORINE FUMES.

## **6. Accidental Release Measures**

SPILL/LEAK CLEAN-UP PROCEDURES: VENTILATE SPILL AREA. REMOVE ALL SOURCES OF HEAT OR IGNITION. CONTAIN SPILL. SPILL MATERIAL MAY BE ABSORBED USING NON-COMBUSTIBLE COMMERCIAL ABSORBENTS. DAMPEN AND SCOOP SPILLED MATERIAL INTO CLEAN, DEDICATED EQUIPMENT. EVERY PRECAUTION SHOULD BE TAKEN TO AVOID MIXING SPILLED MATERIAL WITH OTHER CHEMICALS OR DEBRIS WHEN CLEANING UP. KEEP COLLECTED MATERIALS DAMP AND PUT INTO DRUMS. DISPOSE PROMPTLY. DRIED MATERIAL CAN IGNITE UPON CONTACT WITH COMBUSTIBLES.

## **7. Handling and Storage**

PRECAUTIONARY MEASURES: AVOID CONTACT WITH SKIN, EYES, AND CLOTHING. WEAR PROTECTIVE CLOTHING, GLOVES, AND SPLASH GOGGLES OR SHIELD. WASH THOROUGHLY AFTER USING. AVOID BREATHING DUST OR MIST. USE WITH ADEQUATE VENTILATION.

STORAGE AND HANDLING: KEEP IN A CLOSED CONTAINER. STORE IN A COOL, DRY, WELL VENTILATED AREA AND AWAY FROM DIRECT SUNLIGHT. ISOLATE FROM INCOMPATIBLE MATERIALS.

PROTECT FROM PHYSICAL DAMAGE.

## **8. Exposure Controls and Personal Protection**

VENTILATION: A SYSTEM OF LOCAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURE BELOW THE AIRBORNE EXPOSURE LIMITS. LOCAL EXHAUST IS USUALLY PREFERRED BECAUSE IT CONTROLS THE EMISSION AT ITS SOURCE, PREVENTING DISPERSION OF IT INTO THE GENERAL WORK AREA. REFER TO THE ACGIH DOCUMENT INDUSTRIAL VENTILATION, A MANUAL OF RECOMMENDED PRACTICES FOR DETAILS.

RESPIRATORY PROTECTION: NIOSH/MSHA APPROVED RESPIRATOR IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS. GENERALLY, A DUST/MIST RESPIRATOR MAY BE WORN IN AREAS WHERE THE TLV IS EXCEEDED UP TO TEN TIMES. (50 TIMES IF THE APPROPRIATE FULL\_FACE

RESPIRATOR AND CARTRIDGES ARE USED.) ALTERNATIVELY, A SUPPLIED-AIR FULL FACE-PIECE RESPIRATOR OR AIR-LINE HOOD MAY BE WORN. WHEN CHLORINE OR CHLORINE DIOXIDE FUMES ARE PRESENT, USE ACID GAS CARTRIDGES WITH AIR-PURIFYING RESPIRATORS.

EYE PROTECTION: USE CHEMICAL SAFETY GOGGLES AND A FACE SHIELD IF THE POTENTIAL FOR SPLASHING EXISTS.

AN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES SHOULD BE MAINTAINED IN THE WORK AREA.

SKIN PROTECTION: USE RUBBER OR GAUNTLET TYPE NEOPRENE IMPERVIOUS GLOVES AND BODY-COVERING CLOTHING.

PERSONAL HYGIENE: WASH THOROUGHLY AFTER HANDLING.

INGREDIENTS WT PCT PEL TLV(TWA)  
(CAS NO.)(APPROX) MG/M3 PPM MG/M3 PPM

-----  
SODIUM CHLORITE 20 ND ND  
(7758-19-2)

SODIUM CHLORATE 0-3 ND ND  
(7775-09-9)

SODIUM CHLORIDE 1-6 ND ND  
(7647-14-5)

SODIUM SULFATE 1-2 ND ND  
(7757-82-6)

WATER 69-78 ND ND  
(7732-18-5)

THE TLV'S ARE GIVEN FOR GUIDANCE; LOCAL APPLICABLE REGULATIONS SHOULD ALWAYS BE FOLLOWED. INGREDIENTS ARE THOSE PRESENT AT 1% OR GREATER, OR AT 0.1% OR GREATER IF LISTED AS POTENTIAL CARCINOGENS BY OSHA/IARC/NTP. PROPRIETARY INGREDIENT IDENTITIES ARE AVAILABLE IN ACCORDANCE WITH 29 CFR 1910.1200.

CARCINOGEN: NTP - NO

IARC - NO

OSHA - NO

## 9. Physical and Chemical Properties

Product CAS Number	NOT APPLICABLE TO MI
Molecular Formula	MIXTURE

D = DECOMPOSES

BOILING POINT, 760 MM HG (DEG C): 182 - 186 F

MELTING/FREEZING POINT (DEG C): ND

SPECIFIC GRAVITY (WATER = 1): 1.15

VAPOR PRESSURE (MM HG): 110.5  
VAPOR DENSITY (AIR = 1): 0.620  
WATER SOLUBILITY (% BY WT): MISCIBLE  
VOLATILES (% BY WT): 75  
EVAPORATION RATE (BUTYL ACETATE = 1): <1  
PH OF SOLUTION: 12.5

APPEARANCE/ODOR: CLEAR, COLORLESS LIQUID, WITH A SLIGHT CHLORINE  
ODOR.

## 10. Stability and Reactivity

THERMAL STABILITY: STABLE UNDER ORDINARY CONDITIONS OF USE AND  
STORAGE.

INCOMPATIBILITY: ACIDS, REDUCING AGENTS, COMBUSTIBLE MATERIALS,  
OXIDIZING MATERIALS, HYPOCHLORITE, ORGANIC SOLVENTS AND COMPOUNDS,  
GARBAGE, DIRT, ORGANIC MATTER, HOUSEHOLD PRODUCTS, SOAP PRODUCTS,  
PAINT PRODUCTS, VINEGAR, BEVERAGES, OILS, PINE OIL, DIRTY RAGS,  
SULFUR-CONTAINING RUBBER, OR ANY OTHER FOREIGN MATTER.

CONDITIONS TO AVOID: DO NOT STORE IN DIRECT SUNLIGHT OR EXPOSE TO  
HEAT. DRIED MATERIAL CAN IGNITE ON CONTACT WITH COMBUSTIBLES.  
AVOID CONTAMINATION WITH FOREIGN MATERIALS. DO NOT EXPOSE TO UV  
LIGHT.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION RELEASES  
TOXIC CHLORINE FUMES, AND OXIDES OF SODIUM. CONTACT WITH ACIDS  
RELEASES CHLORINE DIOXIDE GAS.

## 11. Toxicological Information

TOXICITY DATA: (FOR 100% SODIUM CHLORITE)  
ORAL TOXICITY: LD50: 165 MG/KG (RAT)  
LD50: 350 MG/KG (MOUSE)  
LD50: 300 MG/KG (GUINEA PIG)  
TDLO: 29750 MG/KG/85W (MOUSE) CARCINOGENIC EFFECTS

## 12. Ecological Information

## 13. Disposal Considerations

DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH APPLICABLE FEDERAL,  
STATE, AND LOCAL ENVIRONMENTAL AND REGULATORY  
REQUIREMENTS.

## 14. Transportation Information

DOT SHIPPING NAME: CHLORITE SOLUTION, WITH MORE THAN 5% BUT LESS  
THAN 16% AVAILABLE CHLORINE

DOT HAZARD CLASS: 8  
HAZARDOUS INGREDIENTS: SODIUM CHLORITE  
IDENTIFICATION NUMBER: UN 1908  
PACKING GROUP: II  
LABEL: CORROSIVE

NOTE: DURING AN INCIDENT INVOLVING THIS MATERIAL, USE OF DOT  
EMERGENCY RESPONSE GUIDE NO. 154 IS ALSO RECOMMENDED.

## 15. Regulatory Information

TOXIC SUBSTANCES CONTROL ACT(TSCA): CHEMICAL INGREDIENTS ARE  
ON THE TSCA INVENTORY.

SUPERFUND REPORTABLE QUANTITY (RQ): NOT REGULATED.

HAZARDOUS WASTE NO.: NOT REGULATED. ?

SARA TITLE III: NOT REGULATED.  
(SECTION 313)

### CANADIAN LISTS:

DSL/NDSL: SODIUM CHLORITE IS ON THE DOMESTIC SUBSTANCES LIST.

WHMIS: SODIUM CHLORITE IS ITEM NUMBER 1432 FROM THE  
INGREDIENT DISCLOSURE LIST AND IS SUBJECT TO REPORTING AT 1%  
THRESHOLD.

STATE LISTS: THIS MATERIAL CONTAINS INGREDIENTS THAT MAY BE LISTED FOR  
REPORTING OR DISCLOSURE IN THE STATES OF CONNECTICUT,  
MASSACHUSETTS, NEW JERSEY, PENNSYLVANIA, OR RHODE ISLAND.  
PLEASE CHECK WITH THE APPROPRIATE STATE AGENCIES.

FOR STATES NOT LISTED: PLEASE CHECK WITH THE APPROPRIATE AGENCIES.

## 16. Other Information

---

## GENERATOR INFORMATION

Name: [REDACTED] USEPA ID # [REDACTED]  
 Facility Address: [REDACTED] SIC/NAICS Code: [REDACTED] State Code: [REDACTED]  
 City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
 Contact: [REDACTED] Title: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

## BILLING INFORMATION

☒ SAME AS ABOVE

Company Name: [REDACTED]  
 Address: [REDACTED]  
 City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
 Attention: [REDACTED] Phone: ( ) [REDACTED] Fax: ( ) [REDACTED]

## WASTE INFORMATION

Name of Waste/Common Chemical Name:

SPENT PICKLE LIQUOR (KOLA)

Process Generating Waste (Please be specific, incomplete information may delay the approval process):

WIRE PROCESSING

## USEPA / STATE WASTE IDENTIFICATION

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste  
 2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
 3. List ALL Applicable Waste Codes: K062 D002

## PHYSICAL CHARACTERISTICS OF WASTE

<b>Color:</b> <input type="checkbox"/> White/Clear <input checked="" type="checkbox"/> Black/Brown <input type="checkbox"/> Other _____	<b>Suspended Solids</b> <input type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 % <input type="checkbox"/> 1-3 % <input checked="" type="checkbox"/> > 5% <div style="text-align: center;">22.5</div>	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input type="checkbox"/> 1.0 - 1.2 <input type="checkbox"/> 0.8 - 1.0 <input checked="" type="checkbox"/> 1.3 - 1.4 Exact / Other <u>1.30</u>	<u>acceptable</u> <u>05.08.15</u>
--------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------

pH: ☐ NA ☒ ≤ 2 ☐ 2 - 4 ☐ 4 - 6 ☐ 6 - 8 ☐ 8 - 10 ☐ 10 - 12.5 ☐ ≥ 12.5

Liquid Flash Point: ☐ <73°F ☐ 73 - 100°F ☐ 101 - 140°F ☐ 141 - 200°F ☒ >200°F ☒ None ☒ Closed Cup ☐ Open Cup

VOC CONCENTRATION - -0- PPM (MUST BE COMPLETED)

TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >= 0.1%)

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
<u>Sulfuric Acid</u>	<u>40</u>	<u>20</u>			
<u>water</u>	<u>99</u>	<u>80</u>			
<u>Solids &amp; Dissolved Solids</u>	<u>25</u>	<u>05</u>			

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge-provide backup

☐ Lab Analysis

☒ Generator Knowledge

☐ TCLP

☐ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	<input type="checkbox"/>	ppm	Aromatic Amine	<input type="checkbox"/>	ppm
Dioxins	<input type="checkbox"/>	ppm	Pesticides	<input type="checkbox"/>	ppm
Cyanides Reactive	<input type="checkbox"/>	ppm	Rodenticides	<input type="checkbox"/>	ppm
Cyanides Total	<input type="checkbox"/>	ppm	Fungicides	<input type="checkbox"/>	ppm
Sulfides Reactive	<input type="checkbox"/>	ppm			
Sulfides Total	<input type="checkbox"/>	ppm			

Arsenic (As)	D004	<input checked="" type="checkbox"/>	< 5	ppm	ppm
Barium (Ba)	D005	<input checked="" type="checkbox"/>	<100	ppm	ppm
Cadmium (Cd)	D006	<input checked="" type="checkbox"/>	< 1	ppm	ppm
Chromium (Cr)	D007	<input checked="" type="checkbox"/>	< 5	ppm	ppm
Lead (Pb)	D008	<input checked="" type="checkbox"/>	< 5	ppm	ppm
Mercury (Hg)	D009	<input checked="" type="checkbox"/>	< 0.2	ppm	ppm
Selenium (Se)	D010	<input checked="" type="checkbox"/>	< 1	ppm	ppm
Silver (Ag)	D011	<input checked="" type="checkbox"/>	< 5	ppm	ppm

TCLP Organics D012 - D043 above regulatory limits: Present ☐ Not Present ☒

### IS WASTE ANY OF THE FOLLOWING?

At Least One Box Must Be Checked.

- ☐ Radioactive    ☐ Water Reactive    ☐ Oxidizer    ☐ Shock Sensitive    ☐ Reactive (other)    ☐ DOT Explosives  
☐ NIOSH Human-Positive Carcinogens    ☐ NESHAP Wastes (Benzene, etc.)    ☐ Biological    ☒ None Apply

### SHIPPING INFORMATION

- Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☐ Yes ☐ No
- Reportable Quantity (RQ) in pounds \_\_\_\_\_
- DOT Shipping Name \_\_\_\_\_ Hazard Class \_\_\_\_\_ UN/NA \_\_\_\_\_
- PG \_\_\_\_\_ ERG \_\_\_\_\_ Hazardous Constituents for "n.o.s." \_\_\_\_\_
- Method of Shipment: ☒ Bulk Tanker ☐ Vac truck ☐ Rail Car ☐ Drums ☐ Totes
- Number of Units to Ship Now: \_\_\_\_\_ 6. Anticipated Volume / Units per Year: 8000 gal/wk or ☐ One Time
- Special Handling Requirements including PPE: \_\_\_\_\_

### CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warrant in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Generator's Signature: \_\_\_\_\_ Date: MAY 7, 2015

**GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

- GRAB SAMPLING METHOD
- Tank COLLECTION POINT

- SAMPLE \_\_\_\_\_
- SAMPLE \_\_\_\_\_

- Sample No. \_\_\_\_\_ Preservation: Yes ☐ No ☒

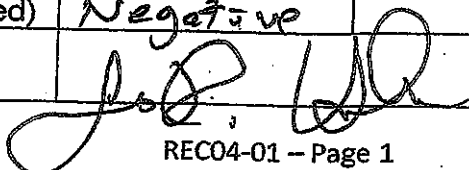
- CHAIN OF CUSTODY Each person who handles the sample must sign below when the sample passes from one to another.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	5-7-15	2:15pm		5-7-15	2:00pm

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

## RECEIVING &amp; APPROVAL FORM

RECEIVING INFORMATION	
Date	5/7/15
Receiving ID#	Sulfuric Acid
Manifest#	Line:
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	Client

LAB INFORMATION		Oil in Sample Only	
Compatible? (RT# )	(Yes) No	Barium	
PCBs (ppm)(Oily Waste Only)?	N/A	Calcium	
TOC (ppm)(CC Waste Only)?	N/A	Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	0.1	Sodium Chloride	
Cyanides? (mg/L)	< 30	Bicarbonate	
Sulfides? (ppm)	< 200	Carbonate	
Specific Gravity	1.30	TDS	
Physical Description	Liquid/Solid	Resistivity	
Stream Consistency	Yes (No)	Sulfate	
Oil in Sample	Yes (No)		
Temperature	74°F		
Conductivity	350.7 mS		
% Solids	50.7		
Turbidity	(Yes) No		
Color (visual)	Green		
TSS (%)	22.5		
Radiation Screen (as needed)	Negative		
Lab Signature			



**ENVIRONMENTAL GEO-TECHNOLOGIES, LLC**

28470 Citrin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

**Generator Waste Profile**Profile # **00651****GENERATOR INFORMATION**

Name: [REDACTED] USEPA ID # [REDACTED]  
Facility Address: [REDACTED] SIC/NAICS Code: [REDACTED] State Code: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Contact: [REDACTED] Title: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

**BILLING INFORMATION**☐ SAME AS ABOVE

Company Name: [REDACTED]  
Address: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Attention: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

**WASTE INFORMATION**Name of Waste/Common Chemical Name: Acid solution

Process Generating Waste (Please be specific, incomplete information may delay the approval process):  
By product of manufacturing ceramics.

**USEPA / STATE WASTE IDENTIFICATION**

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste  
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
3. List ALL Applicable Waste Codes: D002

**PHYSICAL CHARACTERISTICS OF WASTE**

<b>Color:</b> <input type="checkbox"/> White/Clear <input type="checkbox"/> Black/Brown <input checked="" type="checkbox"/> Other <u>green</u>	<b>Suspended Solids</b> <input type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 % <input checked="" type="checkbox"/> 1-3 % <input type="checkbox"/> > 5 %	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single-Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input checked="" type="checkbox"/> 1.0-1.2 <input type="checkbox"/> 0.8-1.0 <input type="checkbox"/> 1.3-1.4 Exact / Other _____	<i>acceptable</i> <b>051515</b>
---------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

pH: ☐ NA ☒ ≤ 2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ ≥ 12.5

Liquid Flash Point: ☐ <73°F ☐ 73-100°F ☐ 101-140°F ☐ 141-200°F ☐ >200°F ☒ None ☒ Closed Cup ☐ Open Cup

VOC CONCENTRATION - - 0 - PPM (MUST BE COMPLETED)

**TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT ≥ 0.1%)**

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
Water	70	90	% HCl	5	18
Chromium III chloride	1	3	% Copper chloride	1	3

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge provide backup:  
☐ Lab Analysis ☒ Generator Knowledge

☐ TCLP ☐ TOTAL

Not Present		Concentration		Not Present		Concentration					
PCB	<input type="checkbox"/>		ppm	Aromatic Amine	<input type="checkbox"/>		ppm	Arsenic (As)	D004	<input checked="" type="checkbox"/>	< 5 ppm
Dioxins	<input type="checkbox"/>		ppm	Pesticides	<input type="checkbox"/>		ppm	Barium (Ba)	D005	<input type="checkbox"/>	< 100 ppm
Cyanides Reactive	<input type="checkbox"/>		ppm	Rodenticides	<input type="checkbox"/>		ppm	Cadmium (Cd)	D006	<input type="checkbox"/>	< 1 ppm
Cyanides Total	<input type="checkbox"/>		ppm	Fungicides	<input type="checkbox"/>		ppm	Chromium (Cr)	D007	<input type="checkbox"/>	< 5 ppm
Sulfides Reactive	<input type="checkbox"/>		ppm					Lead (Pb)	D008	<input type="checkbox"/>	< 5 ppm
Sulfides Total	<input type="checkbox"/>		ppm					Mercury (Hg)	D009	<input type="checkbox"/>	< 0.2 ppm
								Selenium (Se)	D010	<input type="checkbox"/>	< 1 ppm
								Silver (Ag)	D011	<input type="checkbox"/>	< 5 ppm

TCLP Organics D012 - D043 above regulatory limits: Present ☐ Not Present ☒

### IS WASTE ANY OF THE FOLLOWING?

At Least One Box Must Be Checked.

- ☐ Radioactive ☐ Water Reactive ☐ Oxidizer ☐ Shock Sensitive ☐ Reactive (other) ☐ DOT Explosives  
☐ NIOSH Human-Positive Carcinogens ☐ NESHAP Wastes (Benzene, etc.) ☐ Biological ☒ None Apply

### SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? X Yes ☐ No
2. Reportable Quantity (RQ) in pounds 100
3. DOT Shipping Name Waste corrosive liquid, N.O.S. Hazard Class 8 UN/NA 1760
- PG II ERG 154 Hazardous Constituents for "n.o.s." (HCL & chromium III chloride)
4. Method of Shipment: ☐ Bulk Tanker ☐ Vac truck ☐ Rail Car ☒ Drums ☐ Totes
5. Number of Units to Ship Now: 1 6. Anticipated Volume / Units per Year: \_\_\_\_\_ or X One Time
6. Special Handling Requirements including PPE: \_\_\_\_\_

### CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warrant in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Generator's Signature: \_\_\_\_\_ Date: 5-12-2015

**GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. SAMPLING METHOD 2. COLLECTION POINT

3. SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. \_\_\_\_\_ Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY *Each person who handles the sample must sign below when the sample passes from one to another.*

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

**ENVIRONMENTAL GEO-TECHNOLOGIES, LLC**

28470 Citrin Dr, Romulus, MI 48174 Telephone 734 946 1000 Fax 734 946 1002

**Generator Waste Profile****Profile # 0065****GENERATOR INFORMATION**

Name: [REDACTED] USEPA ID #: [REDACTED]  
Facility Address: [REDACTED] SIC/NAICS Code: [REDACTED] State Code: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Contact: [REDACTED] Title: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

**BILLING INFORMATION**☐ SAME AS ABOVE

Company Name: [REDACTED]  
Address: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Attention: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

**WASTE INFORMATION**Name of Waste/Common Chemical Name: Bonderite C-AK

Process Generating Waste (Please be specific, incomplete information may delay the approval process):

Material found during plant clean out.**USEPA / STATE WASTE IDENTIFICATION**

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste  
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
3. List ALL Applicable Waste Codes: D002

**PHYSICAL CHARACTERISTICS OF WASTE**

<b>Color:</b> <input type="checkbox"/> White/Clear <input type="checkbox"/> Black/Brown <input checked="" type="checkbox"/> Other, i.e. red	<b>Suspended Solids</b> <input checked="" type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 % <input type="checkbox"/> 1-3 % <input type="checkbox"/> > 5 %	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input checked="" type="checkbox"/> 1.0-1.2 <input type="checkbox"/> 0.8-1.0 <input type="checkbox"/> 1.3-1.4 Exact / Other _____	<i>acceptable</i> <i>10</i> <i>05/15/15</i>
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pH: ☐ NA ☒ ≤ 2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ ≥ 12.5Liquid Flash Point: ☐ <73°F ☐ 73-100°F ☐ 101-140°F ☐ 141-200°F ☒ >200°F ☐ None ☒ Closed Cup ☐ Open CupVOC CONCENTRATION - 0 PPM (MUST BE COMPLETED)

TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT ≥ 0.1%)

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
Bonderite C-AK See MSDS	60	- 100 %			%
		%			%
		%			%
		%			%
		%			%

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge provide backup

☐ Lab Analysis☒ Generator Knowledge☐ TCLP☐ TOTAL

	Not Present	Concentration		Not Present	Concentration								
PCB	<input type="checkbox"/>	ppm	Aromatic Amine	<input type="checkbox"/>	ppm	Arsenic (As)	D004	<input type="checkbox"/>	< 5	ppm			ppm
Dioxins	<input type="checkbox"/>	ppm	Pesticides	<input type="checkbox"/>	ppm	Barium (Ba)	D005	<input type="checkbox"/>	< 100	ppm			ppm
Cyanides Reactive	<input type="checkbox"/>	ppm	Rodenticides	<input type="checkbox"/>	ppm	Cadmium (Cd)	D006	<input type="checkbox"/>	< 1	ppm			ppm
Cyanides Total	<input type="checkbox"/>	ppm	Fungicides	<input type="checkbox"/>	ppm	Chromium (Cr)	D007	<input type="checkbox"/>	< 5	ppm			ppm
Sulfides Reactive	<input type="checkbox"/>	ppm				Lead (Pb)	D008	<input type="checkbox"/>	< 5	ppm			ppm
Sulfides Total	<input type="checkbox"/>	ppm				Mercury (Hg)	D009	<input type="checkbox"/>	< 0.2	ppm			ppm
						Selenium (Se)	D010	<input type="checkbox"/>	< 1	ppm			ppm
						Silver (Ag)	D011	<input type="checkbox"/>	< 5	ppm			ppm

TCLP Organics D012 - D043 above regulatory limits: Present ☐ Not Present ☒

## IS WASTE ANY OF THE FOLLOWING?

At Least One Box Must Be Checked.

- ☐ Radioactive    ☐ Water Reactive    ☐ Oxidizer    ☐ Shock Sensitive    ☐ Reactive (other)    ☐ DOT Explosives  
☐ NIOSH Human-Positive Carcinogens    ☐ NESHAP Wastes (Benzene, etc.)    ☐ Biological    ☒ None Apply

## SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)?    X Yes ☐ No
2. Reportable Quantity (RQ) in pounds 100
3. DOT Shipping Name Waste Sodium hydroxide    Hazard Class 8    UN/NA 1823
- PG II    ERG 154    Hazardous Constituents for "h.p.s." \_\_\_\_\_
4. Method of Shipment:    ☐ Bulk Tanker    ☐ Vac truck    ☐ Rail Car    X Drum    ☐ Totes
5. Number of Units to Ship Now: 1-55 gallon    6. Anticipated Volume / Units per Year: \_\_\_\_\_ or X One Time
6. Special Handling Requirements including PPE: \_\_\_\_\_

## CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Generator's Signature: \_\_\_\_\_ Date: 2-2-93

**GENERATOR CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. <u>SAMPLING METHOD</u>	2. <u>COLLECTION POINT</u>				
3. <u>SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER</u>					
4. Sample No. _____	Preservation: Yes <input type="checkbox"/> No <input type="checkbox"/>				
5. CHAIN OF CUSTODY Each person who handles the sample must sign below when the sample passes from one to another.					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Henkel

Revision Number: 002.0

Issue date: 08/05/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE C-AK MIL-ETCH AERO  
known as TURCO MIL-ETCH  
Product type: Aluminium Etching Agents  
Restriction of Use: None identified  
Company address: Henkel Corporation  
One Henkel Way  
Rocky Hill, Connecticut 06067

IDH number: 594939

Region: United States

Contact Information:  
Telephone: (860) 574-5100  
MEDICAL EMERGENCY Phone: Poison Control Center  
1-877-671-4608 (toll free) or 1-303-592-1711  
TRANSPORT EMERGENCY Phone: CHEMTREC  
1-800-424-9300 (toll free) or 1-703-527-3887  
Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**DANGER:** MAY BE CORROSIVE TO METALS.  
HARMFUL IN CONTACT WITH SKIN.  
CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

HAZARD CLASS	HAZARD CATEGORY
CORROSIVE TO METALS	1
ACUTE TOXICITY DERMAL	4
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1

### PICTOGRAM(S)



### Precautionary Statements

**Prevention:** Keep only in original container. Do not breathe dust or fumes. Wash thoroughly after handling. Wear protective gloves, eye protection, and face protection.

**Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Immediately call a poison control center or physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

**Storage:** Store locked up. Store in corrosive resistant container with a resistant inner liner.

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

IDH number: 594939

Product name: BONDERITE C-AK MIL-ETCH AERO known as TURCO MIL-ETCH  
Page 1 of 5

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Sodium hydroxide	1310-73-2	80 - 100

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

Inhalation:	If inhaled, immediately remove the affected person to fresh air.
Skin contact:	For skin contact, flush with large amounts of water. Seek immediate medical attention. If irritation persists, repeat flushing and get medical attention. Discard any shoes or clothing items that cannot be decontaminated.
Eye contact:	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
Ingestion:	Seek medical advice. Do not induce vomiting. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Symptoms:	See Section 11.
Notes to physician:	If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.

### 5. FIRE FIGHTING MEASURES

Extinguishing media:	Use media appropriate for surrounding material.
Special firefighting procedures:	Wear full protective clothing. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	Not a fire hazard.
Hazardous combustion products:	Irritating and toxic gases or fumes may be released during a fire.

### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Prevent further leakage or spillage if safe to do so. Wear suitable protective clothing, gloves and eye/face protection.
Clean-up methods:	Sweep up or gather material and place in appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

### 7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing dust. Provide adequate ventilation. Wash thoroughly after handling. For industrial use only. NEVER ADD WATER TO PRODUCT. For dilutions, add product slowly to water while stirring. Use caution; heat may be generated.
Storage:	Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Material is hygroscopic and may absorb small amount of atmospheric moisture.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEL	OTHER
Sodium hydroxide	2 mg/m3 Ceiling	2 mg/m3 PEL	None	None

**Engineering controls:**

Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

**Respiratory protection:**

If ventilation is not sufficient to effectively prevent buildup of dust, appropriate NIOSH/MSHA respiratory protection must be provided.

**Eye/face protection:**

Wear safety glasses, chemical goggles. (If splashing is possible).

**Skin protection:**

Chemical resistant, impermeable gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Powder
Color:	Off white
Odor:	Solvent
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	Not applicable
Boiling point/range:	Not applicable
Melting point/range:	Not applicable
Specific gravity:	Not applicable
Vapor density:	Not applicable
Flash point:	Not applicable
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not applicable
Evaporation rate:	Not applicable
Solubility in water:	Appreciable
Partition coefficient (n-octanol/water):	Not determined
VOC content:	Not determined.
Viscosity:	Not available.
Decomposition temperature:	Not available.

## 10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.
Incompatible materials:	Reaction with strong acids. Avoid contact with organic materials, oils, greases, and any oxidizable materials. Adding water to this product may cause localized overheating and splattering.
Reactivity:	Not available.
Conditions to avoid:	Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

### Potential Health Effects/Symptoms

**Inhalation:** Inhalation of dusts of this product may cause severe irritation and burns to the respiratory tract.  
**Skin contact:** Corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns.  
**Eye contact:** This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.  
**Ingestion:** This product may produce corrosive damage to the gastrointestinal tract if it is swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Sodium hydroxide	None	Irritant, Corrosive, Eyes

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Sodium hydroxide	No	No	No

## 12. ECOLOGICAL INFORMATION

Ecological Information: Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Follow all local, state, federal and provincial regulations for disposal. This product contains a chelating agent.

**Hazardous waste number:** Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

**Proper shipping name:** Sodium hydroxide, solid  
**Hazard class or division:** 8  
**Identification number:** UN 1823  
**Packing group:** II

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Sodium hydroxide, solid  
**Hazard class or division:** 8  
**Identification number:** UN 1823  
**Packing group:** II

### Water Transportation (IMO/MDG)

**Proper shipping name:** SODIUM HYDROXIDE, SOLID  
**Hazard class or division:** 8  
**Identification number:** UN 1823  
**Packing group:** II



## 15. REGULATORY INFORMATION

### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

**TSCA 12 (b) Export Notification:** None above reporting de minimis

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis

**CERCLA/SARA Section 311/312:** Immediate Health, Reactive

**CERCLA/SARA Section 313:** None above reporting de minimis

**CERCLA Reportable quantity:** Sodium hydroxide (CAS# 1310-73-2) 1,000 lbs. (454 kg)

**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

### Canada Regulatory Information

**CEPA DSL/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: Updated Contact Information in Section 1.

**Prepared by:** John DiCerbo, Sr. Regulatory Affairs Specialist

**Issue date:** 08/05/2014

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

## GENERATOR INFORMATION

Name: [REDACTED] USEPA ID # [REDACTED]  
Facility Address: [REDACTED] SIC/NAICS Code: [REDACTED] State Code: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Contact: [REDACTED] Title: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

## BILLING INFORMATION

☐ SAME AS ABOVE

Company Name: [REDACTED]  
Address: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Attention: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

## WASTE INFORMATION

Name of Waste/Common Chemical Name: Chromicoat T3  
Process Generating Waste (Please be specific, incomplete information may delay the approval process):  
Material found during plant clean out

## USEPA / STATE WASTE IDENTIFICATION

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste  
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
3. List ALL Applicable Waste Codes: D002

## PHYSICAL CHARACTERISTICS OF WASTE

<b>Color:</b> <input type="checkbox"/> White/Clear <input type="checkbox"/> Black/Brown <input checked="" type="checkbox"/> Other, i.e. red	<b>Suspended Solids</b> <input checked="" type="checkbox"/> 0-1% <input type="checkbox"/> 3-5% <input type="checkbox"/> 1-3% <input type="checkbox"/> > 5%	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input checked="" type="checkbox"/> 1.0-1.2 <input type="checkbox"/> 0.8-1.0 <input type="checkbox"/> 1.3-1.4 Exact / Other _____	<i>acceptable</i> <i>851515</i>
------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

pH: ☐ NA ☒ ≤ 2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ ≥ 12.5

Liquid Flash Point: ☐ <73°F ☐ 73-100°F ☐ 101-140°F ☐ 141-200°F ☒ >200°F ☐ None ☒ Closed Cup ☐ Open Cup

VOC CONCENTRATION - -0- PPM (MUST BE COMPLETED)

TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT ≥ 0.1%)

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
See MSDS	-	%		-	%
	-	%		-	%
	-	%		-	%
	-	%		-	%
	-	%		-	%

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge provide backup

☐ Lab Analysis☒ Generator Knowledge☐ TCLP☐ TOTAL

	Not Present	Concentration		Not Present	Concentration
PCB	<input type="checkbox"/>	_____ ppm	Aromatic Amine	<input type="checkbox"/>	_____ ppm
Dioxins	<input type="checkbox"/>	_____ ppm	Pesticides	<input type="checkbox"/>	_____ ppm
Cyanides Reactive	<input type="checkbox"/>	_____ ppm	Rodenticides	<input type="checkbox"/>	_____ ppm
Cyanides Total	<input type="checkbox"/>	_____ ppm	Fungicides	<input type="checkbox"/>	_____ ppm
Sulfides Reactive	<input type="checkbox"/>	_____ ppm			
Sulfides Total	<input type="checkbox"/>	_____ ppm			

Arsenic (As)	D004	<input type="checkbox"/>	< 5	ppm	_____ ppm
Barium (Ba)	D005	<input type="checkbox"/>	< 100	ppm	_____ ppm
Cadmium (Cd)	D006	<input type="checkbox"/>	< 1	ppm	_____ ppm
Chromium (Cr)	D007	<input type="checkbox"/>	< 5	ppm	_____ ppm
Lead (Pb)	D008	<input type="checkbox"/>	< 5	ppm	_____ ppm
Mercury (Hg)	D009	<input type="checkbox"/>	< 0.2	ppm	_____ ppm
Selenium (Se)	D010	<input type="checkbox"/>	< 1	ppm	_____ ppm
Silver (Ag)	D011	<input type="checkbox"/>	< 5	ppm	_____ ppm

TCLP Organics D012 - D043 above regulatory limits: Present ☐ Not Present ☒

## IS WASTE ANY OF THE FOLLOWING?

At Least One Box Must Be Checked.

☐ Radioactive    ☐ Water Reactive    ☐ Oxidizer    ☐ Shock Sensitive    ☐ Reactive (other)    ☐ DOT Explosives  
☐ NIOSH Human Positive Carcinogens    ☐ NESHAP Wastes (Benzene, etc.)    ☐ Biological    ☒ None Apply

## SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)?    X Yes ☐ No
2. Reportable Quantity (RQ) in pounds    100
3. DOT Shipping Name    Waste Corrosive liquid, N.O.S.    Hazard Class    8    UN/NA    1760

PG II    ERG 154    Hazardous Constituents for "n.o.s."    Nitric acid &amp; hydrofluoric acid

4. Method of Shipment:    ☐ Bulk Tanker    ☐ Vac truck    ☐ Rail Car    X Drums    ☐ Totes
5. Number of Units to Ship Now:    2-5 gallon pails    6. Anticipated Volume / Units per Year:    \_\_\_\_\_ or X One Time
6. Special Handling Requirements including PPE: \_\_\_\_\_

## CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or results of the sample analysis.

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Generator's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261 Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. \_\_\_\_\_ 2. \_\_\_\_\_  
 SAMPLING METHOD    COLLECTION POINT
3. \_\_\_\_\_  
 SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER
4. Sample No. \_\_\_\_\_ Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY    Each person who handles the sample must sign below when the sample passes from one to another.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

2 Parts Cork

Material Safety Data Sheet

Chemetall  
Oakite

Chromicoat® T3

L-25

Version 1.2  
Revision Date 10/31/2006

Print Date 11/28/2006

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Chromicoat® T3  
MSDS Number : REL\_3541  
Company : OAKITE PRODUCTS INC  
675 Central Avenue  
New Providence, NJ 07974  
Telephone : +18005264473  
Telefax : +19084644658  
Emergency telephone no : CHEMTREC - 800-424-9300

SECTION 2. HAZARDOUS COMPONENTS INFORMATION

Component	CAS-No.	Weight %
Nitric acid	7697-37-2	1.00 - 10.00
Chromium (VI) trioxide	1333-82-0	1.00 - 10.00
Hydrofluoric Acid	7664-39-3	1.00 - 10.00
Trade Secret Registry	735517-5008P	1.00 - 5.00

Unidentified ingredients are considered not hazardous under Federal Hazard Communication Standard (29CFR 1910.1200).

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview

Form : liquid  
Colour : orange  
Odour : acid  
Hazard Summary : Harmful by inhalation and if swallowed. Causes severe burns. Liquid or vapor causes burns which may be delayed. May cause cancer.

Route(s) of Entry	Inhalation	Skin	Ingestion
	yes	yes	yes

Carcinogenicity:

NTP Chromium (VI) trioxide This substance is listed by NTP as a Carcinogen.  
IARC Chromium (VI) trioxide This substance is listed by IARC as a Carcinogen.  
OSHA No substance in this product is regulated by OSHA as a carcinogen

## Chromicoat® T3

Version 1.2

Print Date 11/28/2006

Revision Date 10/31/2006

## SECTION 4. FIRST AID MEASURES

- Inhalation** : If inhaled, remove to fresh air. If symptoms persist, call a physician. If breathing is irregular or stopped, administer artificial respiration.
- Skin contact** : Wash off immediately with plenty of water for at least 15 minutes. Pay particular attention to skin under nails. Take off contaminated clothing and shoes immediately. Get medical attention immediately if irritation develops and persists.
- Eye contact** : Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention immediately.
- Ingestion** : Rinse mouth. Give several glasses of water to drink followed by milk or magnesia. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## SECTION 5. FIRE-FIGHTING MEASURES

- Flash point** : Note: does not flash
- Lower explosion limit** : Note: Not applicable.
- Upper explosion limit** : Note: Not applicable.
- TDG Flammability Class** : NONE
- Suitable extinguishing media** : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for fire-fighters** : In the event of fire, wear self-contained breathing apparatus.
- Further information** : Heat liberates oxygen which may intensify combustion. May have oxidizing Properties, fire risk on contact with combustible material.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

- Methods for cleaning up** : Soak up with inert absorbent material.  
lime  
soda ash  
Flush with plenty of water.

## Chromicoat® T3

Version 1.2

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Additional advice : Never return spills in original containers for re-use.

## SECTION 7. HANDLING AND STORAGE

## Handling

## Handling

- : Unscrew closure slowly. Allow all pressure to escape through threads before removing closure.  
Add this product to surface of solution slowly to avoid spattering

## Storage

## Requirements for storage areas and containers

- : Keep containers tightly closed to avoid contamination  
Store indoors in a cool, well-ventilated place  
Keep container out of sun and away from heat.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH TLV (TWA)	OSHA PEL (TWA)
Nitric acid	5.2 mg/m3 N.D.	5 mg/m3 N.D.
Chromium (VI) trioxide	0.05 mg/m3 as CrN.D.	0.005 mg/m3 as CrN.D.
Hydrofluoric Acid	2.3 mg/m3 celluloseN.D.	3 ppm N.D.
Trade Secret Registry	N.D.	N.D.

- Eye protection : Chemical resistant goggles must be worn.  
face-shield
- Hand protection : Impervious gloves
- Skin and body protection : complete suit protecting against chemicals
- Respiratory protection : Use NIOSH approved respiratory protection.
- Hygiene measures : Avoid contact with skin, eyes and clothing  
Wear suitable gloves and eye/face protection  
Wear suitable protective clothing  
Wash hands before breaks and immediately after handling the product  
Provide adequate ventilation  
Do not inhale fumes  
Keep away from food and drink

## Chromicoat® T3

Version 1.2

Revision Date 10/31/2006

Print Date 11/28/2006

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

pH	: < 2.5
Melting point/range	: Note: no data available
Boiling point/range	: Note: no data available
Vapour pressure	: Note: no data available
Bulk density	: 9.50 lb/gal
Water solubility	: Note: completely soluble
Partition coefficient (n-octanol/water)	: Note: no data available
Percent of Volatile by Weight excluding water	: Note: no data available
Relative density	: 1.140
Evaporation rate	: 1 Note: Water = 1

## SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	: Heat. Avoid letting the product become dry.
Materials to avoid	: bases reducing agents organic materials combustible material Avoid prolonged contact of concentrate with glass, ceramic, or concrete. Warning! Do not use together with other products; may release dangerous gases (chlorine).
Hazardous decomposition products	: nitrogen oxides (NOx) Chromium trioxide Gaseous hydrogen fluoride (HF) hydrogen, by reaction with metals Traces of Fluorides

**Chromicoat® T3**

Version 1.2

Print Date 11/28/2006

Revision Date 10/31/2006

**SECTION 11. TOXICOLOGICAL INFORMATION**

Toxicity : Mixture; Not Determined.

Acute oral toxicity  
Chromium (VI) trioxide : LD50, rat  
Dose: 80 mg/kg

Sodium tungstate : LD50, rat  
Dose: 1,190 mg/kg

Acute toxicity (other route)  
Hydrofluoric Acid : LD50, rat, intraperitoneal  
Dose: 25 mg/kg

**SECTION 12. ECOLOGICAL INFORMATION**

Not Available

**SECTION 13. DISPOSAL CONSIDERATIONS**

Advice on Disposal : Refer to applicable local, state and federal regulations as well as industry standards.

**SECTION 14. TRANSPORT INFORMATION**

Refer to Bill of Lading.

**SECTION 15. REGULATORY INFORMATION**

TSCA Status : All components of this material are on the US TSCA Inventory.

SARA 313 Components	: Nitric acid	CAS-No. 7697-37-2
	: Chromium (VI) trioxide	CAS-No. 1333-82-0
	: Hydrofluoric Acid	CAS-No. 7664-39-3
SARA 313 Components	: N.D.	

CERCLA Reportable Quantity	: Nitric acid	1,000 Pounds
	: Chromium (VI) trioxide	10 Pounds
	: Hydrofluoric Acid	100 Pounds

California Prop. 65 : N.D.

N.D. - Not Determined

5/6

N.A. - Not Applicable



**Material Safety Data Sheet****Chemetall  
Oakite****Chromicoat® T3**

Version 12

Print Date 11/28/2006

Revision Date 10/31/2006

NFPA	: 3 0 1 Corrosive Acid
HMIS	: 3.0 1 1
WHMIS	: D2A: Very Toxic Material Causing Other Toxic Effects E: Corrosive Material

**SECTION 16. OTHER INFORMATION****Further information**

Oakite Products, Inc. warrants that the products described herein will conform with its published specifications. The products supplied by Oakite and information related to them are intended for use by buyers having necessary industrial skill and knowledge. Buyers should undertake sufficient verification and testing to determine the suitability of the Oakite materials for their own particular purpose. Since buyer's conditions of use of products are beyond Oakite's control, Oakite does not warrant any recommendations and information for the use of such products. OAKITE DISCLAIMS ALL OTHER WARRANTIES INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE IN CONNECTION WITH THE USE OF ITS PRODUCTS.

N.D. - Not Determined

6/6

N.A. - Not Applicable

**ENVIRONMENTAL GEO-TECHNOLOGIES, LLC**

28470 Citin Dr, Romulus, MI 48174. Telephone 734 946 1000. Fax 734 946 1002

**Generator Waste Profile**Profile # **00657****GENERATOR INFORMATION**

Name: [REDACTED] USEPA ID # [REDACTED]  
Facility Address: [REDACTED] SIC/NAICS Code: [REDACTED] State Code: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Contact: [REDACTED] Title: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

**BILLING INFORMATION**☐ SAME AS ABOVE

Company Name: [REDACTED]  
Address: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Attention: [REDACTED] Phone: [REDACTED] Fax: ( ) [REDACTED]

**WASTE INFORMATION**Name of Waste/Common Chemical Name: Muratic acid

Process Generating Waste (Please be specific, incomplete information may delay the approval process):

Material found during plant clean out.**USEPA / STATE WASTE IDENTIFICATION**

1. This waste is considered to be: ☐ Non-Hazardous Liquid Industrial Waste ☒ Hazardous Waste  
2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
3. List ALL Applicable Waste Codes: D002

**PHYSICAL CHARACTERISTICS OF WASTE**

<b>Color:</b> <input checked="" type="checkbox"/> White/Clear <input type="checkbox"/> Black/Brown <input type="checkbox"/> Other	<b>Suspended Solids</b> <input type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 % <input checked="" type="checkbox"/> 1-3 % <input type="checkbox"/> > 5%	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input checked="" type="checkbox"/> 1.0-1.2 <input type="checkbox"/> 0.8-1.0 <input type="checkbox"/> 1.3-1.4 Exact / Other	<i>acceptable</i> <b>051815</b>
--------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

pH: ☐ NA ☒ ≤ 2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8-10 ☐ 10-12.5 ☐ ≥ 12.5Liquid Flash Point: ☐ <73°F ☐ 73-100°F ☐ 101-140°F ☐ 141-200°F ☐ >200°F ☒ None ☒ Closed Cup ☐ Open CupVOC CONCENTRATION - -0- PPM (MUST BE COMPLETED)**TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >= 0.1%)**

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
Muratic acid		%			%
		%			%
		%			%
		%			%
		%			%

Metals: Indicate if this waste contains any of the following metals. If Generator knowledge provide backup

☐ Lab Analysis ☒ Generator Knowledge☐ TCLP ☐ TOTAL

	Not Present	Concentration		Not Present	Concentration						
PCB	<input type="checkbox"/>	ppm	Aromatic Amine	<input type="checkbox"/>	ppm	Arsenic (As)	D004	<input type="checkbox"/>	< 5	ppm	ppm
Dioxins	<input type="checkbox"/>	ppm	Pesticides	<input type="checkbox"/>	ppm	Barium (Ba)	D005	<input type="checkbox"/>	< 100	ppm	ppm
Cyanides Reactive	<input type="checkbox"/>	ppm	Rodenticides	<input type="checkbox"/>	ppm	Cadmium (Cd)	D006	<input type="checkbox"/>	< 1	ppm	ppm
Cyanides Total	<input type="checkbox"/>	ppm	Fungicides	<input type="checkbox"/>	ppm	Chromium (Cr)	D007	<input type="checkbox"/>	< 5	ppm	ppm
Sulfides Reactive	<input type="checkbox"/>	ppm				Lead (Pb)	D008	<input type="checkbox"/>	< 5	ppm	ppm
Sulfides Total	<input type="checkbox"/>	ppm				Mercury (Hg)	D009	<input type="checkbox"/>	< 0.2	ppm	ppm
						Selenium (Se)	D010	<input type="checkbox"/>	< 1	ppm	ppm
						Silver (Ag)	D011	<input type="checkbox"/>	< 5	ppm	ppm

TCLP Organics D012 - D043 above regulatory limits: Present ☐ Not Present ☒

## IS WASTE ANY OF THE FOLLOWING?

At Least One Box Must Be Checked.

☐ Radioactive ☐ Water Reactive ☐ Oxidizer ☐ Shock Sensitive ☐ Reactive (other) ☐ DOT Explosives  
☐ NIOSH Human-Positive Carcinogens ☐ NESHA Wastes (Benzene, etc.) ☐ Biological ☒ None Apply

## SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? X Yes ☐ No

2. Reportable Quantity (RQ) in pounds 100

3. DOT Shipping Name Waste corrosive liquid, N.O.S. Hazard Class 8 UN/NA 1760

PG. II ERG 154 Hazardous Constituents for "n.o.s." (Muratic acid)

4. Method of Shipment: ☐ Bulk Tanker ☐ Vac truck ☐ Rail Car ☐ Drums ☐ Totes

5. Number of Units to Ship Now: 2-5 gallon pails 6. Anticipated Volume / Units per Year: or X One Time

6. Special Handling Requirements including PPE:

## CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. If this box is checked ☐ I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: [REDACTED]

Title: [REDACTED]

Generator's Signature: [REDACTED]

Date: 5-13-13

**GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample is one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technologies representative.

1. SAMPLING METHOD 2. COLLECTION POINT

3. SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. Preservation: Yes ☐ No ☐

5. CHAIN OF CUSTODY Each person who handles the sample must sign below when the sample passes from one to another.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

## GENERATOR INFORMATION

Name: [REDACTED] USEPA ID # [REDACTED]  
 Facility Address: [REDACTED] SIC/NAICS Code: [REDACTED] State Code: [REDACTED]  
 City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
 Contact: [REDACTED] Title: [REDACTED] Phone: [REDACTED] Fax: [REDACTED]

## BILLING INFORMATION

☒ SAME AS ABOVE

Company Name: [REDACTED]  
 Address: [REDACTED]  
 City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
 Attention: [REDACTED] Phone: ( ) [REDACTED] Fax: ( ) [REDACTED]

## WASTE INFORMATION

Name of Waste/Common Chemical Name:

Electroplating & Plating Waste

Process Generating Waste (Please be specific, incomplete information may delay the approval process):

Electroplating & Plating

## USEPA / STATE WASTE IDENTIFICATION

1. This waste is considered to be: ☐ Non Hazardous Liquid Industrial Waste ☒ Hazardous Waste  
 2. Regulated by TSCA? ☐ Yes ☒ No (PCBs, etc.)  
 3. List ALL Applicable Waste Codes D002 D007 D008 D010

## PHYSICAL CHARACTERISTICS OF WASTE

<b>Color:</b> <input type="checkbox"/> White/Clear <input type="checkbox"/> Black/Brown <input checked="" type="checkbox"/> Other <u>Dark Yellow</u>	<b>Suspended Solids</b> <input checked="" type="checkbox"/> 0-1 % <input type="checkbox"/> 3-5 % <input type="checkbox"/> 1-3 % <input type="checkbox"/> > 5%	<b>Layers:</b> <input type="checkbox"/> Multi-Layered <input type="checkbox"/> Bi-Layered <input checked="" type="checkbox"/> Single Phase	<b>Specific Gravity:</b> <input type="checkbox"/> <0.8 <input type="checkbox"/> 1.0 - 1.2 <input type="checkbox"/> 0.8 - 1.0 <input checked="" type="checkbox"/> 1.3 - 1.4 Exact / Other <u>1.33</u>	<u>acceptable</u> <u>052915</u>
---------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

pH: ☐ NA ☒ ≤ 2 ☐ 2 - 4 ☐ 4 - 6 ☐ 6 - 8 ☐ 8 - 10 ☐ 10 - 12.5 ☐ ≥ 12.5

Liquid Flash Point: ☐ <73°F ☐ 73 - 100°F ☐ 101 - 140°F ☐ 141 - 200°F ☒ >200°F ☐ None ☒ Closed Cup ☐ Open Cup

VOC CONCENTRATION - 0 PPM (MUST BE COMPLETED)

TOTAL COMPOSITION OF WASTE - MUST BE EQUAL TO OR GREATER THAN 100% (LIST EACH CONSTITUENT >= 0.1%)

CONSTITUENT	MAX	MIN	CONSTITUENT	MAX	MIN
Chromic Acid	15	0	Water	71	23
Chromium	1	0			
Sulfuric Acid	30	10			
Phosphoric Acid	30	19			
Less	5	0			

☐ Lab Analysis

**Generator Knowledge**

☐ TCLP☐ TOTAL

Arsenic (As)	D004		< 5	ppm		ppm
Barium (Ba)	D005		<100	ppm		ppm
Cadmium (Cd)	D006		< 1	ppm		ppm
Chromium (Cr)	D007		< 5	ppm		ppm
Lead (Pb)	D008		< 5	ppm		ppm
Mercury (Hg)	D009		< 0.2	ppm		ppm
Selenium (Se)	D010		< 1	ppm		ppm
Silver (Ag)	D011		< 5	ppm		ppm

**IS WASTE ANY OF THE FOLLOWING?**

***At Least One Box Must Be Checked.***

☐ Radioactive    ☐ Water Reactive    ☐ Oxidizer    ☐ Shock Sensitive    ☐ Reactive (other)    ☐ DOT Explosives  
☐ NIOSH Human-Positive Carcinogens    ☐ NESHAP Wastes (Benzene, etc.)    ☐ Biological    ☒ None Apply

## SHIPPING INFORMATION

1. Is this a DOT Hazardous Material (49CFR 172.101 & 173 Subpart D)? ☒ Yes ☐ No

2. Reportable Quantity (RQ) in pounds \_\_\_\_\_

3. DOT Shipping Name Rq. Waste Corrosive Liquid, Acidic, Inorganic, NOS Hazard Class 8 (UN) NA 3264

PG II ERG        Hazardous Constituents for "n.o.s." Chromic Acid, Sulfuric Acid, Phosphoric Acid,

4. Method of Shipment: ☒ Bulk Tanker ☐ Vac truck ☐ Rail Car ☐ Drums ☐ Totes

5. Number of Units to Ship Now: \_\_\_\_\_ 6. Anticipated Volume / Units per Year: Varies or ☐ One Time

**6. Special Handling Requirements including PPE:**

# CERTIFICATION STATEMENT

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted in this and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this information misleading. I understand that others may rely on this representation and warrant in the handling and processing of the waste material described herein. If this box is checked ☐, I request Environmental Geo-Technologies not to correct any inconsistencies. Any corrections Environmental Geo-Technologies makes will be consistent with the results of the sample characterization and/or regulatory requirements.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Generator's Signature: \_\_\_\_\_ Date: 8/29/15

**GENERATOR'S CHAIN OF CUSTODY RECORD INSTRUCTIONS:** PLEASE collect a representative 1-quart sample of the waste described in the above referenced GENERATORS WASTE PROFILE REPORT using an appropriate container. A representative sample one obtained using any of the applicable sampling methods cited in 40 CFR 261-Appendix 1. Fill in the sampling information in the spaces provided below. If you have problems obtaining a representative sample of your waste, please contact your Environmental Geo-Technology representative.

1. SAMPLING METHOD 2. COLLECTION POINT

3. SAMPLE COLLECTOR'S NAME, TITLE, EMPLOYER

4. Sample No. \_\_\_\_\_ Preservation: Yes ☐ No ☐

**5. CHAIN OF CUSTODY** *Each person who handles the sample must sign below when the sample passes from one to another.*

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time



290 South Wagner Road  
Ann Arbor, Michigan 48103  
Tel. 734/995-0995 Fax. 734/995-3731  
Michigan Laboratory ID: 9604  
Wisconsin Laboratory ID: 998321720

## Semivolatile Organic Compounds Data Summary Sheet

For: Mr. Richard Powals  
Environmental Geo-Technologies, Inc.  
28470 Citrin Drive  
Romulus, MI 48174

ATS Project: Environmental Geo-Technologies, Inc. #E008-000  
Report Date: 6/25/15  
ATS SRF: 0603151

### Sample Identification: Injection - May 2015

Sample Date:	6/2/15	QC Batch Number:	QCORG0605151-E
Laboratory Receipt Date:	6/3/15		B5F0064
Preparation Date:	6/5/15, 6/16/15	Sample Matrix:	Wastewater
Analysis Date:	6/11/15, 6/18/15, 6/19/15	Dilution Factor:	500

Parameter (CAS)	Method	Units	Result	Reporting Limit
Aldrin (309-00-2)	EPA 8270 Mod	mg/L	<0.01	0.01
Benzidine (92-87-5)	EPA 8270 Mod	mg/L	<0.75	0.75
N-Nitrosodimethylamine (62-75-9)	EPA 8270 Mod	mg/L	<0.10	0.10
Tetraethyl Lead (78-00-2)	EPA 8270 Mod	mg/L	<0.05	0.05
Hexachlorodibenzo-p-dioxins	EPA 1613B	ng/L	<0.05	0.050
Octachlorodibenzofuran (39001-02-0)	EPA 1613B	ng/L	0.057	0.050
Octachlorodibenzo-p-dioxin (3268-87-9)	EPA 1613B	ng/L	0.22	0.050
Tetrachlorodibenzo-p-dioxins	EPA 1613B	ng/L	<0.04	0.040

Surrogates / Labeled Standards:	Method	Percent Recovery	Recovery Limits
2-Fluorobiphenyl	EPA 8270 Mod	80.2	(50 - 150)
Nitrobenzene-d5	EPA 8270 Mod	77.5	(50 - 150)
p-Terphenyl-d14	EPA 8270 Mod	108.2	(50 - 150)
Tetrachloro-m-xylene (TCMX)	EPA 8270 Mod	68.5	(50 - 150)
13C-1,2,3,4,7,8-HxCDD	EPA 1613B	72.7	(32 - 144)
13C-1,2,3,6,7,8-HxCDD	EPA 1613B	74.2	(28 - 130)
13C-1,2,3,7,8,9-HxCDD	EPA 1613B	75.3	(32 - 144)
13C-OCDF	EPA 1613B	81.7	(17 - 157)
13C-OCDD	EPA 1613B	87.0	(17 - 157)
13C-2,3,7,8-TCDD	EPA 1613B	82.6	(25 - 164)

### Comments:

\* Outside standard control limits.

USEPA Analysis 1613B performed by Vista Analytical.