

January 31, 2019

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 sixty-second Monthly Report ("MR") 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.

EGT did not accept any F039 waste in December, 2018 so no Page A-3 of 3 laboratory analyses are necessary to be submitted as part of this MR.

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 interim report satisfactory, however, if you have any questions or comments, please feel free to contact us.

Sincerely,



Richard J. Powals, P.E.

cc: J. Frost (EGT)

att.

rjp013119/EGTEPAMonthlyReport-December, 2018

AVERAGE INJECTION RATE

Calculation of Average Injection Rate

CURRENT REPORTING YEAR 2018

CURRENT REPORTING MONTH DECEMBER

Date (month, year) of the first injection into either well at the Citrin Road Facility Nov 2013

CURRENT MONTH (all volumes in gallons)

	Injected Waste	Injected Non-Waste	Total injected
MI-163-1W-C010, Well #1-12			
Current Month	29,110	0	29,110
Since facility first injected			14,330,505
MI-163-1W-C011, Well #2-12			
Current Month	0	0	0
Since facility first injected			4,648,736
		Lifetime Combined	18,979,241

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

Calculations

Whole number of months of injection 60

_____ lifetime number of months of injection × 43,830 minutes/month
= 2,629,800 minutes of injection

Lifetime combined injected volume 18,979,241 ÷ 2,629,800 minutes of injection
= 7.2 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)
12/1/2018	3.7	4.4	22.9	23.1	616.6	616.9	13.6	13.6	0.0	0.0	612.3	613.1
12/2/2018	4.1	4.6	22.9	23.2	616.4	616.9	13.6	13.6	0.0	0.0	611.8	612.8
12/3/2018	3.7	4.2	23.0	23.1	616.2	616.8	13.6	13.6	0.0	0.0	612.4	612.8
12/4/2018	3.6	3.9	22.9	23.1	615.6	616.3	13.6	13.6	0.0	0.0	611.8	612.6
12/5/2018	3.6	3.9	22.9	23.1	615.2	615.7	13.6	13.6	0.0	0.0	611.5	612.0
12/6/2018	3.5	3.9	22.9	23.1	614.9	615.4	13.6	13.6	0.0	0.0	611.2	611.6
12/7/2018	3.4	3.7	22.9	23.1	614.6	615.1	13.6	13.6	0.0	0.0	611.1	611.5
12/8/2018	3.4	8.6	22.9	23.1	614.1	614.7	13.6	13.6	0.0	0.0	605.6	611.3
12/9/2018	3.5	9.6	22.9	23.1	613.6	614.2	13.6	13.6	0.0	0.0	604.5	610.5
12/10/2018	3.9	4.7	22.9	23.1	613.5	613.9	13.6	13.6	0.0	0.0	609.0	609.8
12/11/2018	3.6	4.4	22.9	23.1	613.3	613.6	13.6	13.6	0.0	0.0	609.1	609.9
12/12/2018	3.6	4.5	22.9	23.1	613.1	613.5	13.6	13.6	0.0	0.0	608.8	609.8
12/13/2018	3.6	3.9	22.9	23.1	613.2	613.5	13.6	13.6	0.0	0.0	609.3	609.9
12/14/2018	3.6	3.9	23.0	23.1	613.1	613.4	13.6	13.6	0.0	0.0	609.2	609.7
12/15/2018	3.6	3.9	22.9	23.1	613.0	613.4	13.6	13.6	0.0	0.0	609.2	609.7
12/16/2018	3.6	4.0	22.9	23.1	612.7	613.1	13.6	13.6	0.0	0.0	608.7	609.4
12/17/2018	3.6	828.3	22.0	23.4	502.6	1134.3	13.6	13.6	2.6	75.5	170.1	793.7
12/18/2018	5.3	851.4	22.0	22.3	788.8	1172.2	13.6	13.6	4.0	0.0	285.2	834.9
12/19/2018	5.3	867.6	22.0	22.3	779.6	1166.2	13.6	13.6	5.0	19.4	276.8	836.1
12/20/2018	114.9	881.0	22.1	22.3	811.8	1165.7	13.6	13.6	5.3	18.1	267.3	725.8
12/21/2018	2.5	877.2	22.1	22.3	808.7	1174.6	13.6	13.6	3.7	17.9	271.5	838.0
12/22/2018	2.3	2.7	22.1	22.3	840.5	844.1	13.6	13.6	0.0	0.0	837.9	841.7
12/23/2018	2.3	2.5	22.1	22.3	844.0	845.1	13.6	13.6	0.0	0.0	841.6	842.8
12/24/2018	2.2	2.5	22.1	22.3	845.0	845.3	13.6	13.6	0.0	0.0	842.6	843.1
12/25/2018	2.1	2.4	22.0	22.3	845.1	845.4	13.6	13.6	0.0	0.0	842.8	843.2
12/26/2018	2.1	2.4	22.1	22.3	845.0	845.6	13.6	13.6	0.0	0.0	842.7	843.4
12/27/2018	2.2	2.8	22.1	22.3	845.0	845.5	13.6	13.6	0.0	0.0	842.2	843.3
12/28/2018	2.4	2.9	22.1	22.3	845.0	845.4	13.6	13.6	0.0	0.0	842.1	842.8
12/29/2018	2.3	2.6	22.1	22.3	844.5	845.2	13.6	13.6	0.0	0.0	842.0	842.8
12/30/2018	2.3	2.6	22.0	22.3	844.0	844.6	13.6	13.6	0.0	0.0	841.6	842.2
12/31/2018	2.3	2.9	22.0	22.3	843.6	844.1	13.6	13.6	0.0	0.0	840.8	841.8

Circle Chart Index

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

Chart Recorder #1

Channel #1

Blue Pen - Well 1 Injection Pressure (chart value x 30)

Channel #2

Red Pen – Well 1 Annulus Pressure (chart value x 30)

Channel #3

Green Pen – Well 1 Flow Rate (chart value x 4)

Channel #4

Black Pen – Well 1 Annulus Tank Level (chart value x 0)

Chart Recorder #2

Channel #1

Blue Pen – Well 2 Injection Pressure (chart value x 30)

Channel #2

Red Pen – Well 2 Annulus Pressure (chart value x 30)

Channel #3

Green Pen – Well 2 Flow Rate (chart value x 4)

Channel #4

Black Pen – Well 2 Annulus Tank Level (chart value x 0)

Chart Recorder #3

Channel #1

Blue Pen – Injection pH Well 1 & 2 (chart value + 3.3)

Channel #2

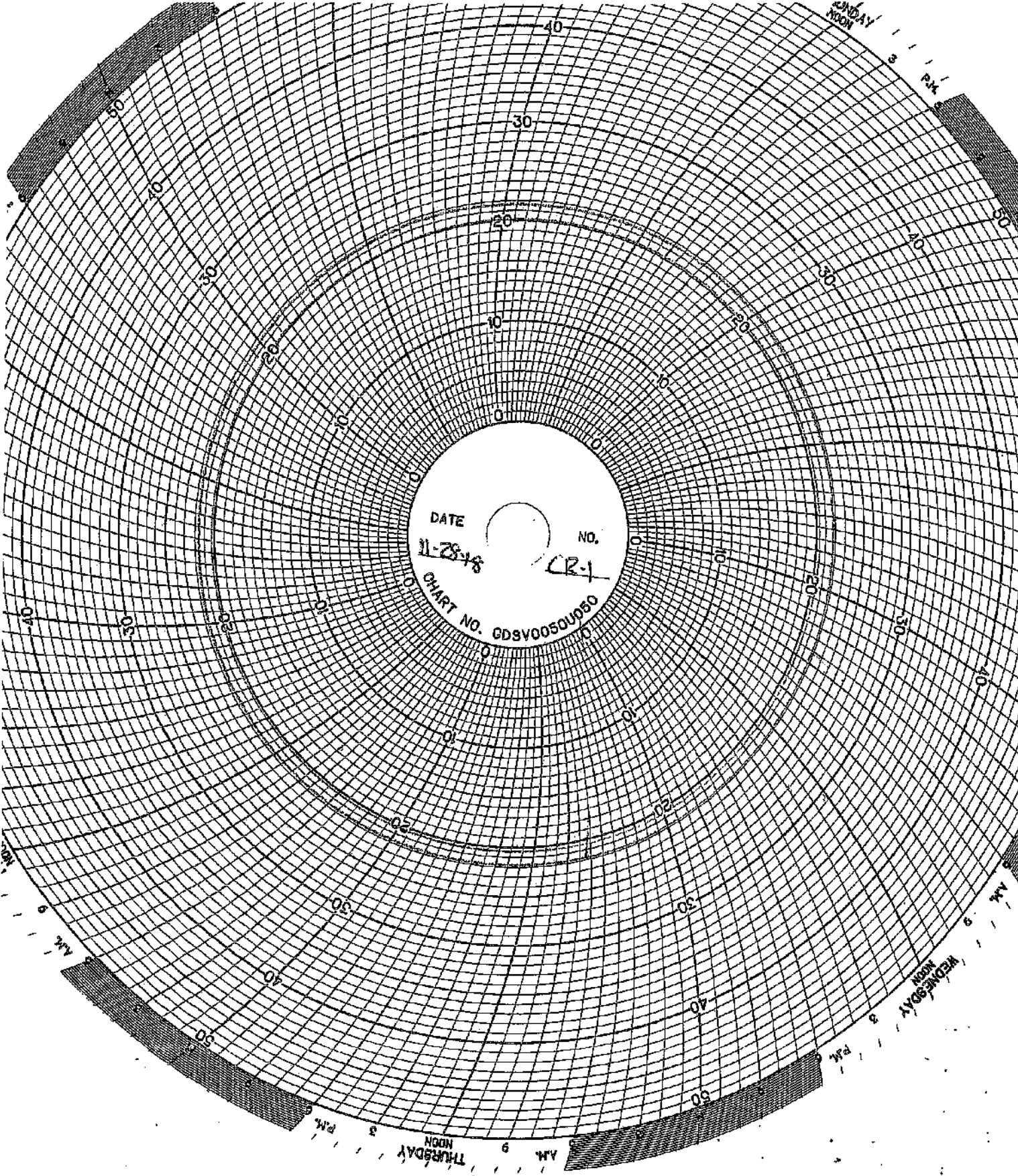
Red Pen – Well 1 Monthly Volume (chart value x 100,000)

Channel #3

Green Pen – Well 2 Monthly Volume (chart value x 100,000)

Channel #4

Black Pen – Temperature (chart value x 0)



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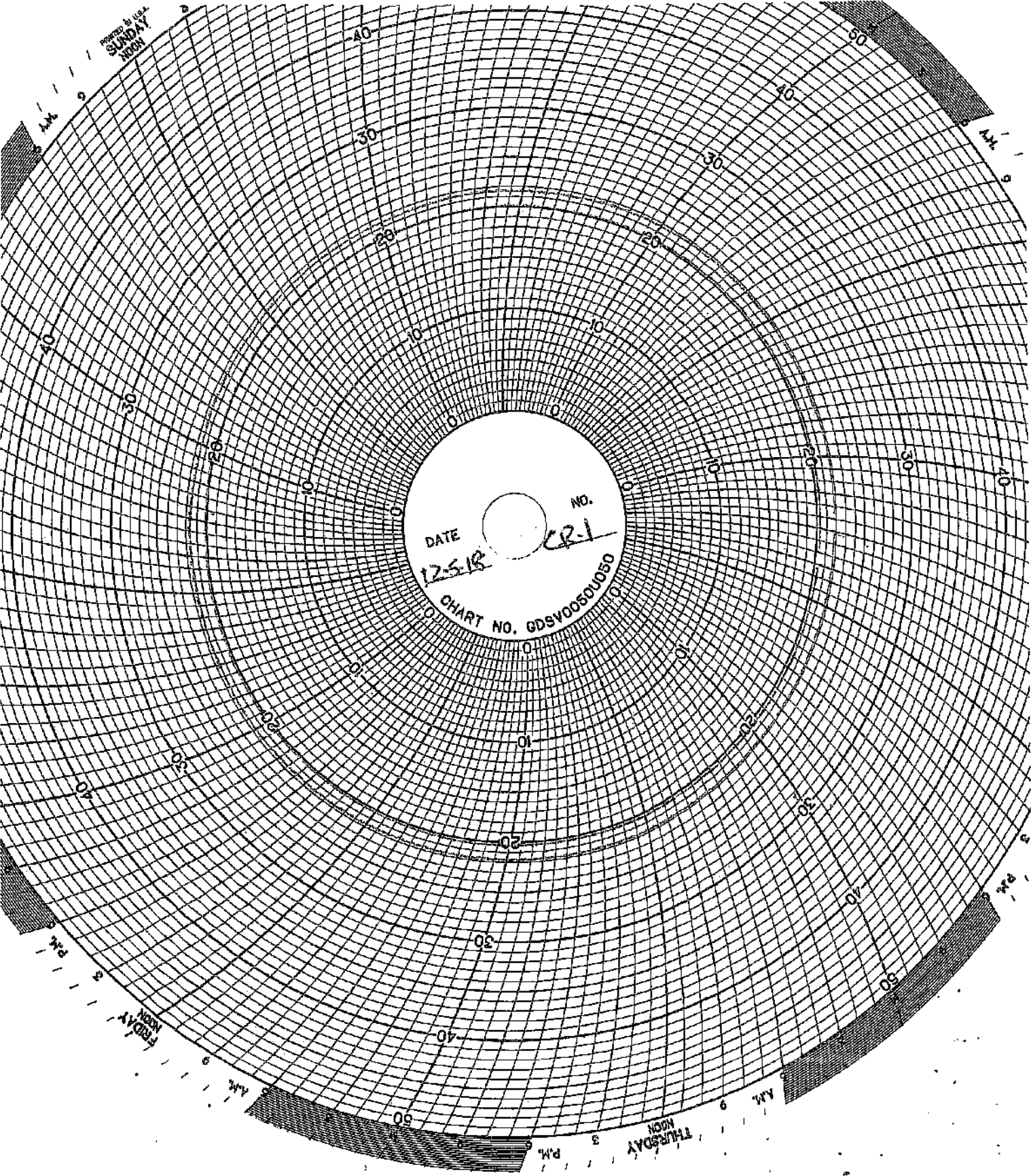
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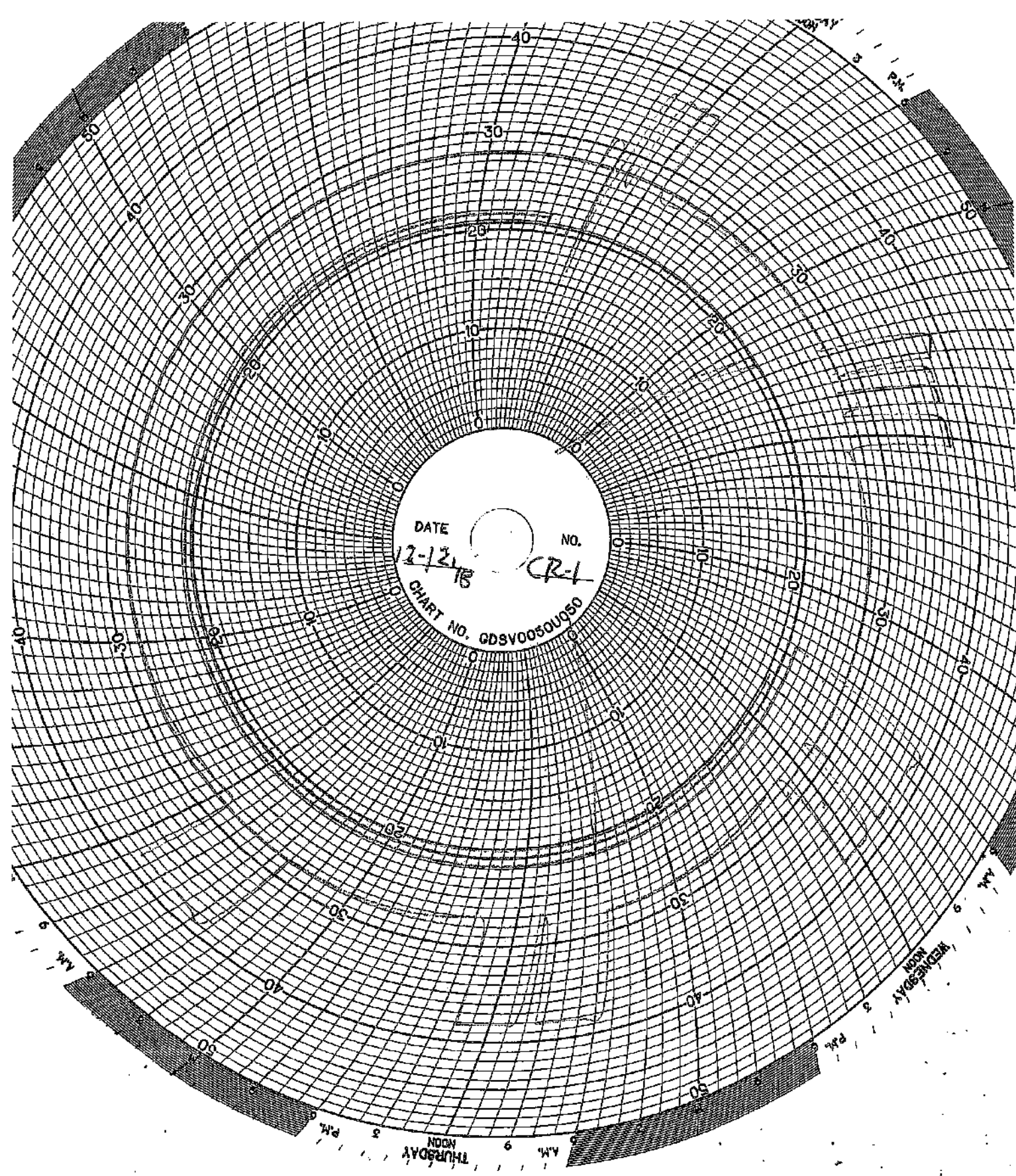
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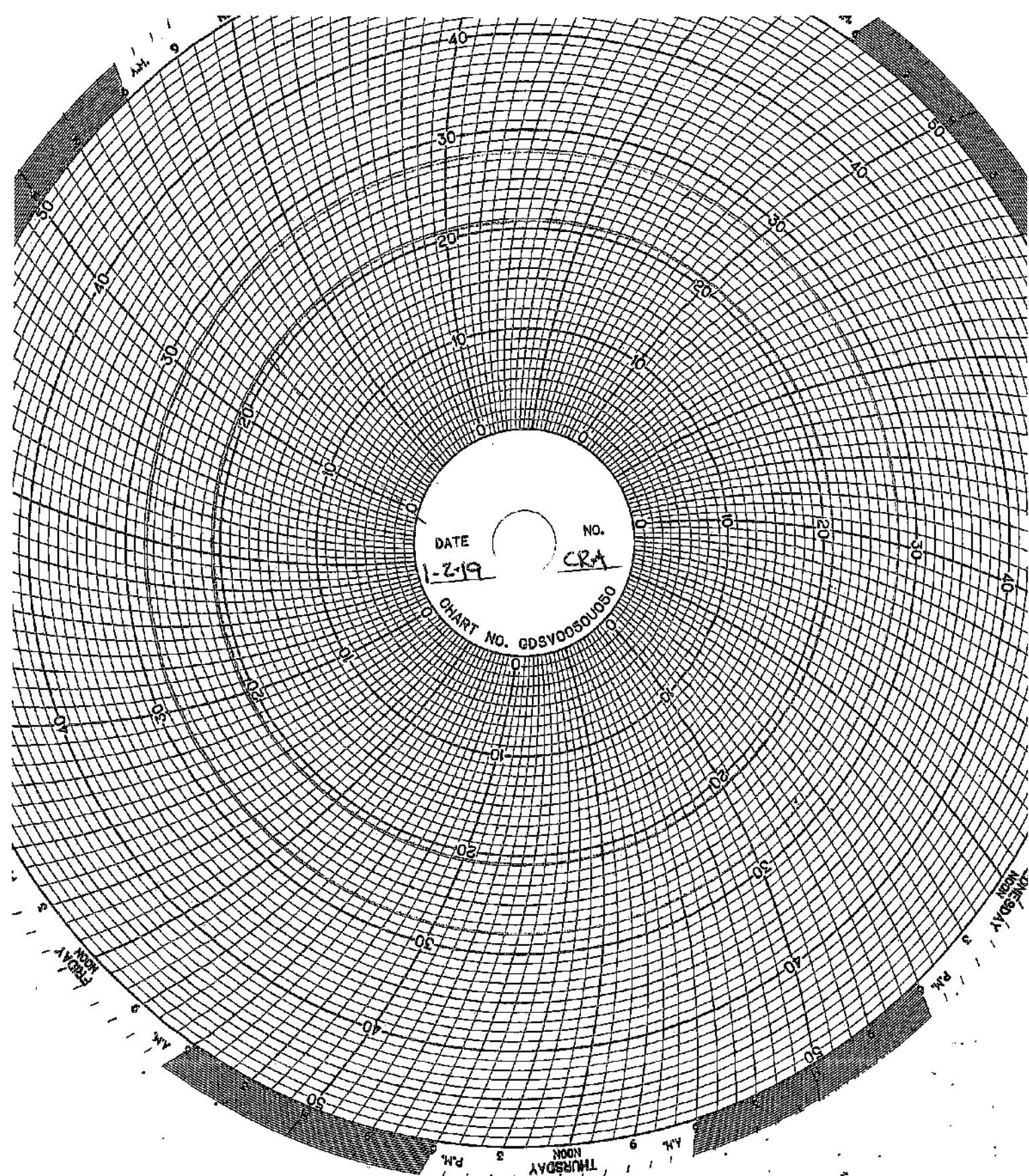
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WELL 2 DATA

Well 02 Monthly Data

Date	Min Injection Pressure (PSIG)	Max Injection Pressure (PSIG)	Min Slight Glass Level (in)	Max Slight 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)
12/1/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/2/2018	0.0	0.0	13.3	14.2	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/3/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/4/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/5/2018	0.0	0.0	13.6	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/6/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/7/2018	0.0	0.0	13.6	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/8/2018	0.0	0.0	13.6	13.7	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/9/2018	0.0	0.0	13.6	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/10/2018	0.0	0.0	13.6	13.7	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/11/2018	0.0	0.0	13.6	13.7	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/12/2018	0.0	0.0	13.6	13.7	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/13/2018	0.0	0.0	13.6	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/14/2018	0.0	0.0	13.3	14.2	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/15/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/16/2018	0.0	0.0	13.3	14.1	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/17/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/18/2018	0.0	0.0	13.6	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/19/2018	0.0	0.0	13.3	14.2	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/20/2018	0.0	0.0	13.4	14.2	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/21/2018	0.0	0.0	13.3	14.2	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/22/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/23/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/24/2018	0.0	0.0	13.7	13.7	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/25/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/26/2018	0.0	0.0	13.3	14.1	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/27/2018	0.0	0.0	13.4	14.2	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/28/2018	0.0	0.0	13.4	13.9	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/29/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/30/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0
12/31/2018	0.0	0.0	13.7	13.8	5.0	5.0	13.6	13.6	0.0	0.0	5.0	5.0

Circle Chart Index

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

Chart Recorder #1

Channel #1

Blue Pen - Well 1 Injection Pressure (chart value x 30)

Channel #2

Red Pen - Well 1 Annulus Pressure (chart value x 30)

Channel #3

Green Pen - Well 1 Flow Rate (chart value x 4)

Channel #4

Black Pen - Well 1 Annulus Tank Level (chart value x 0)

Chart Recorder #2

Channel #1

Blue Pen - Well 2 Injection Pressure (chart value x 30)

Channel #2

Red Pen - Well 2 Annulus Pressure (chart value x 30)

Channel #3

Green Pen - Well 2 Flow Rate (chart value x 4)

Channel #4

Black Pen - Well 2 Annulus Tank Level (chart value x 0)

Chart Recorder #3

Channel #1

Blue Pen - Injection pH Well 1 & 2 (chart value ÷ 3.3)

Channel #2

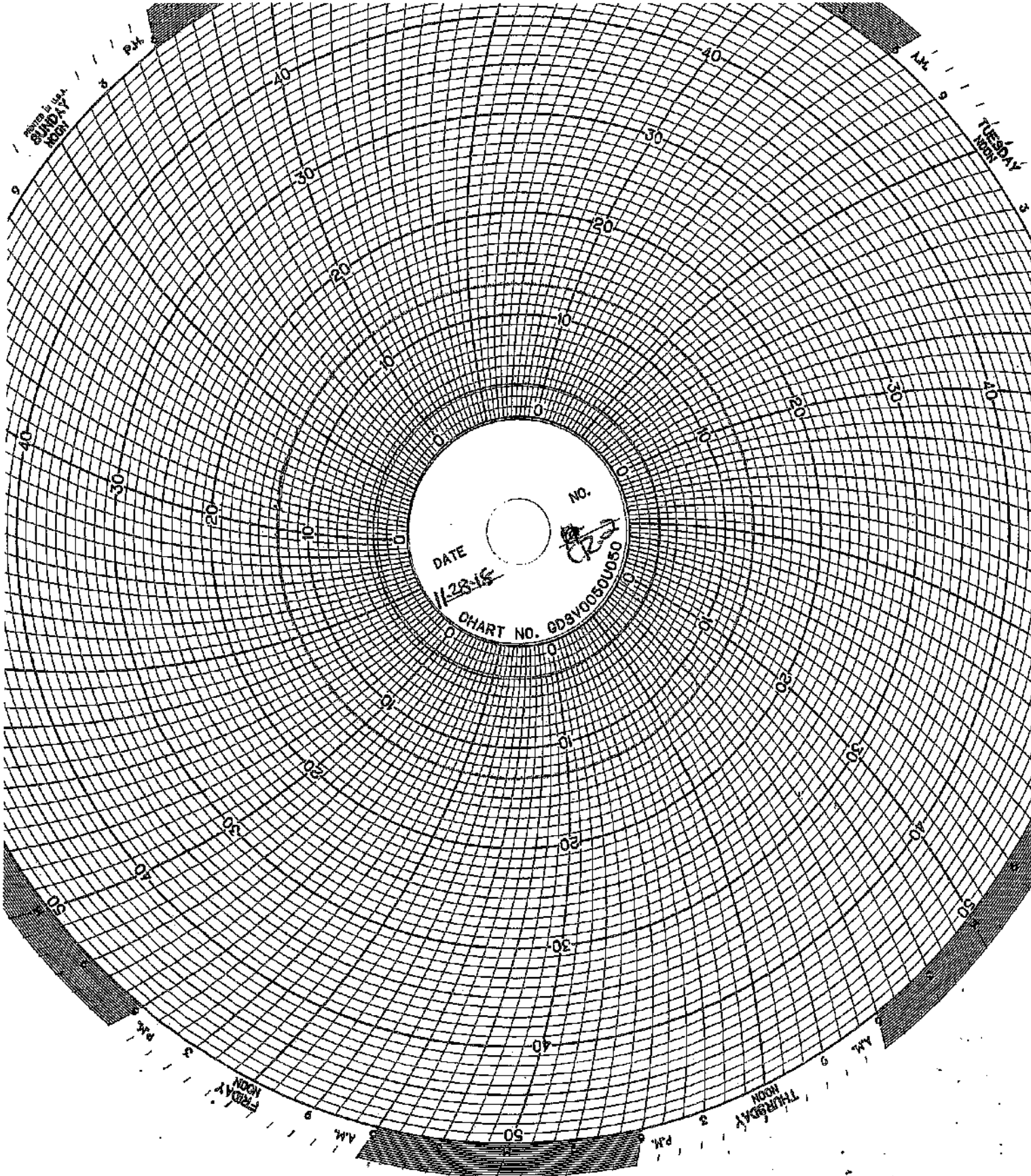
Red Pen - Well 1 Monthly Volume (chart value x 100,000)

Channel #3

Green Pen - Well 2 Monthly Volume (chart value x 100,000)

Channel #4

Black Pen - Temperature (chart value x 0)



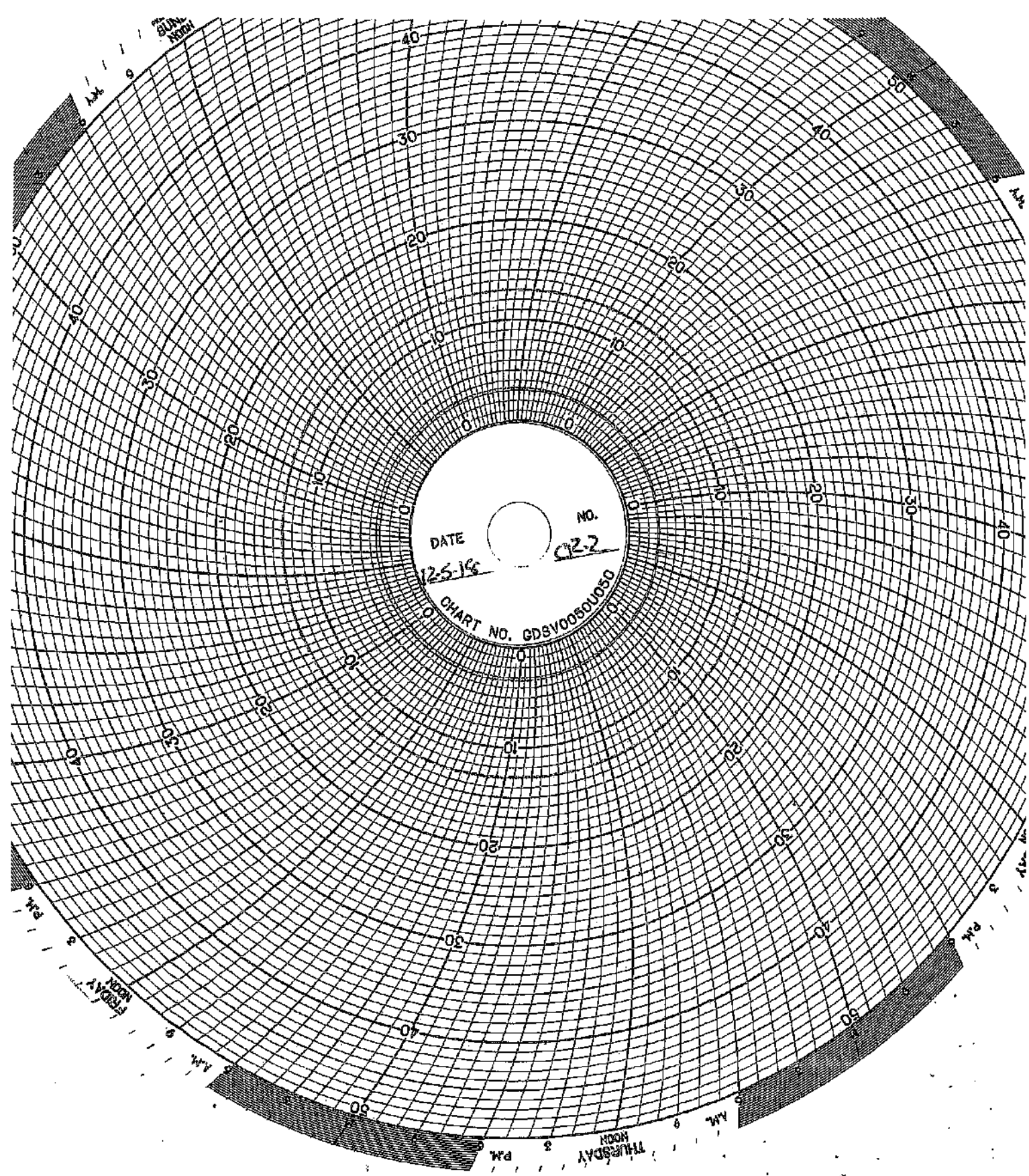
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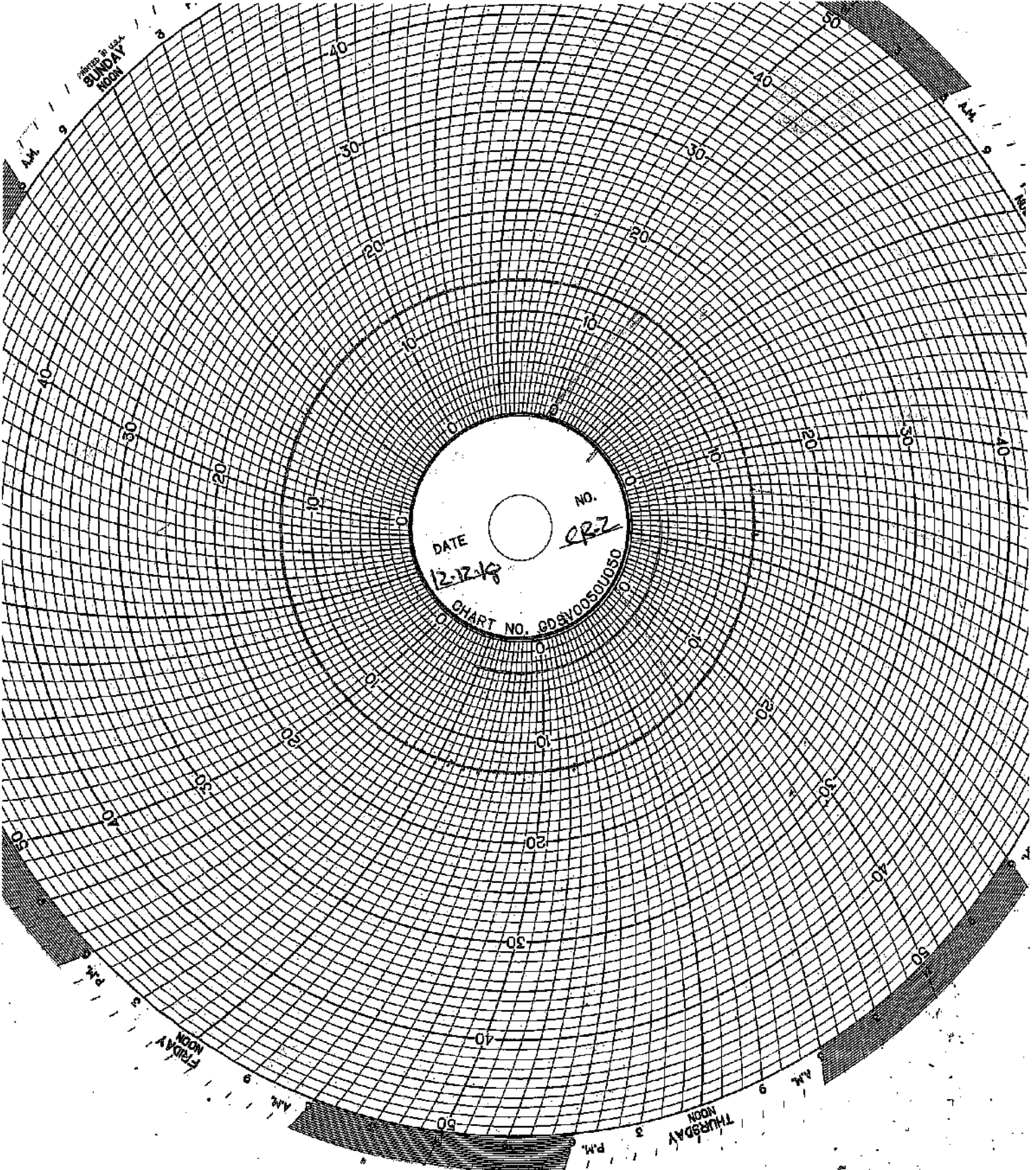
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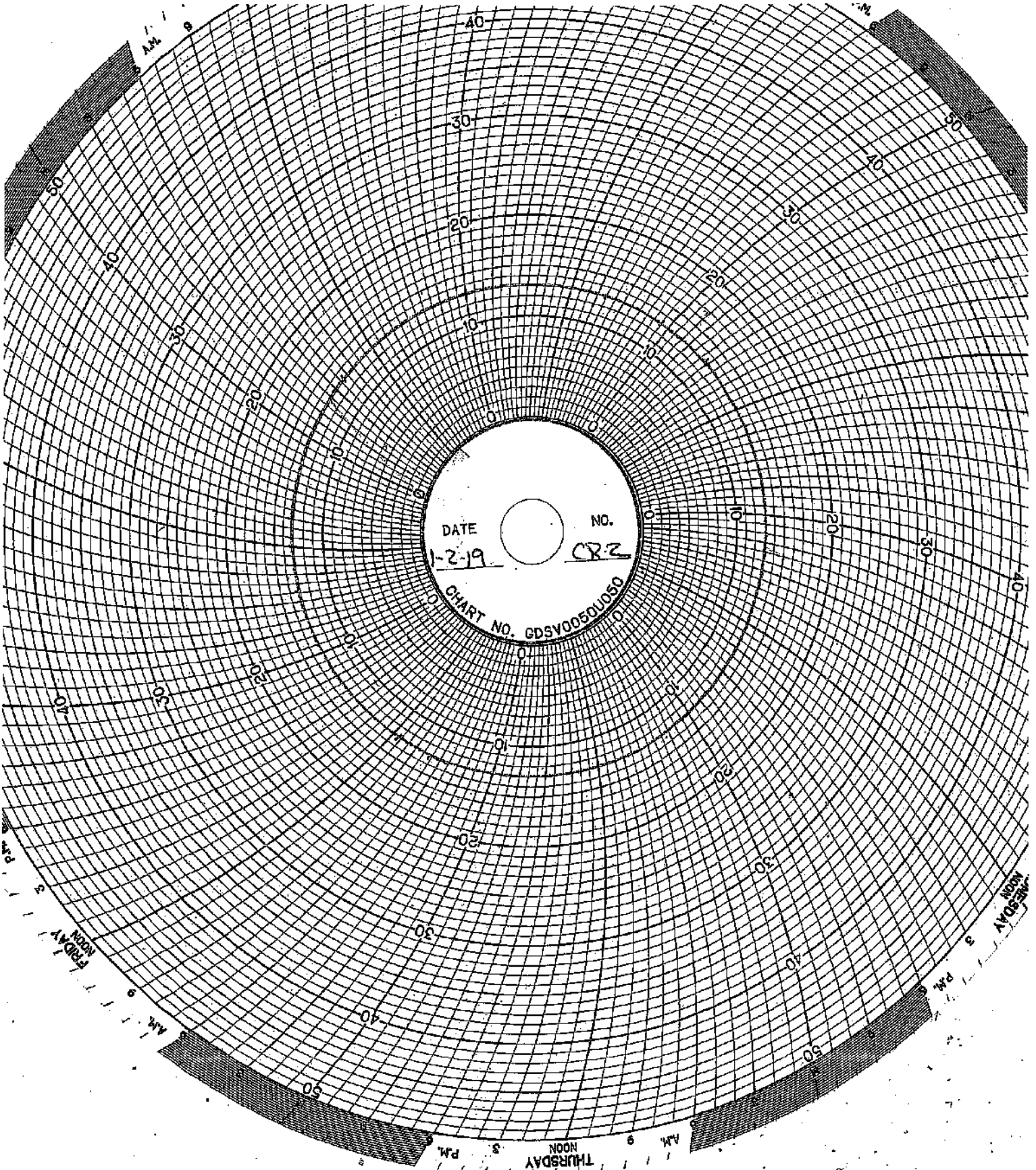
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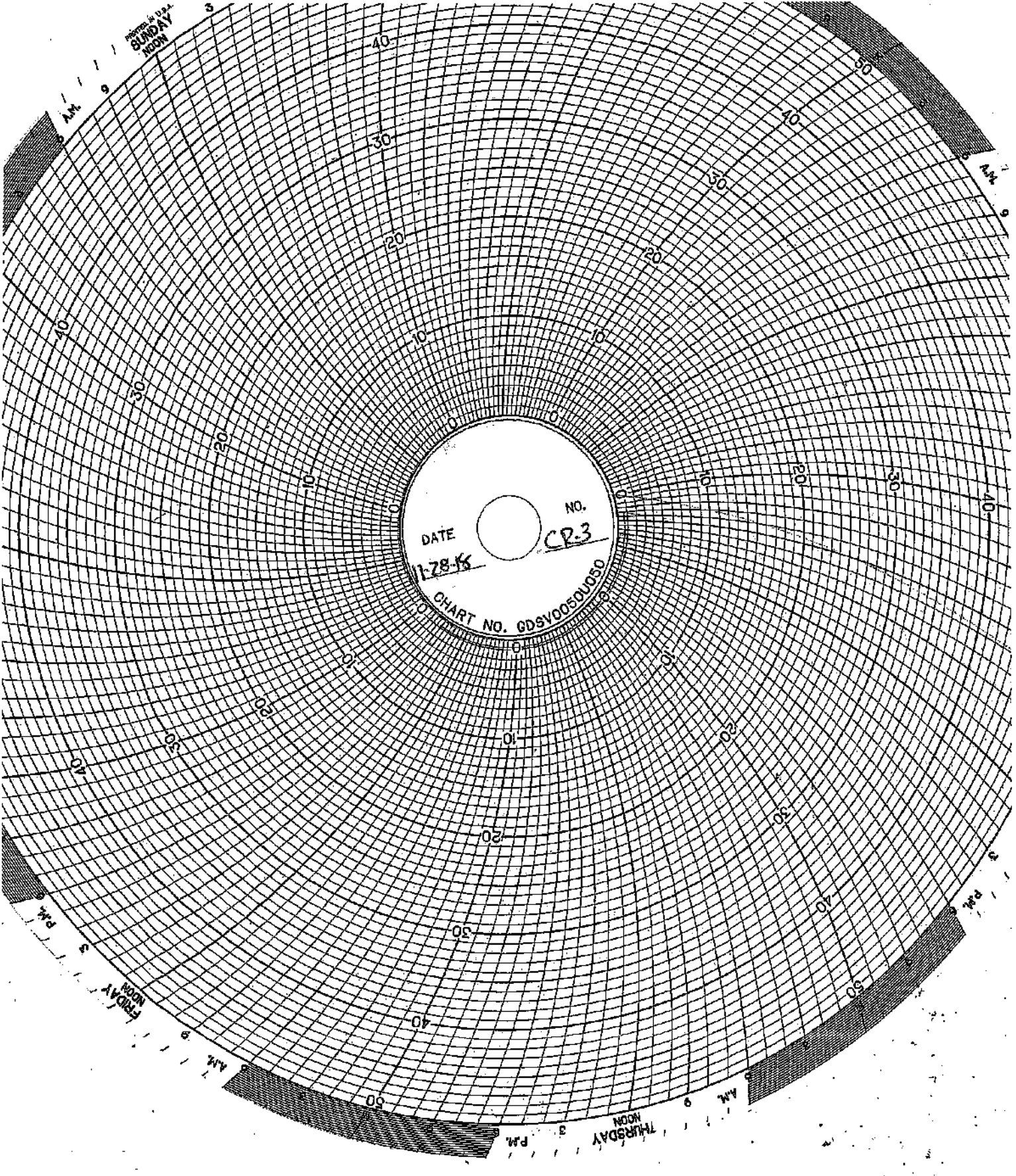
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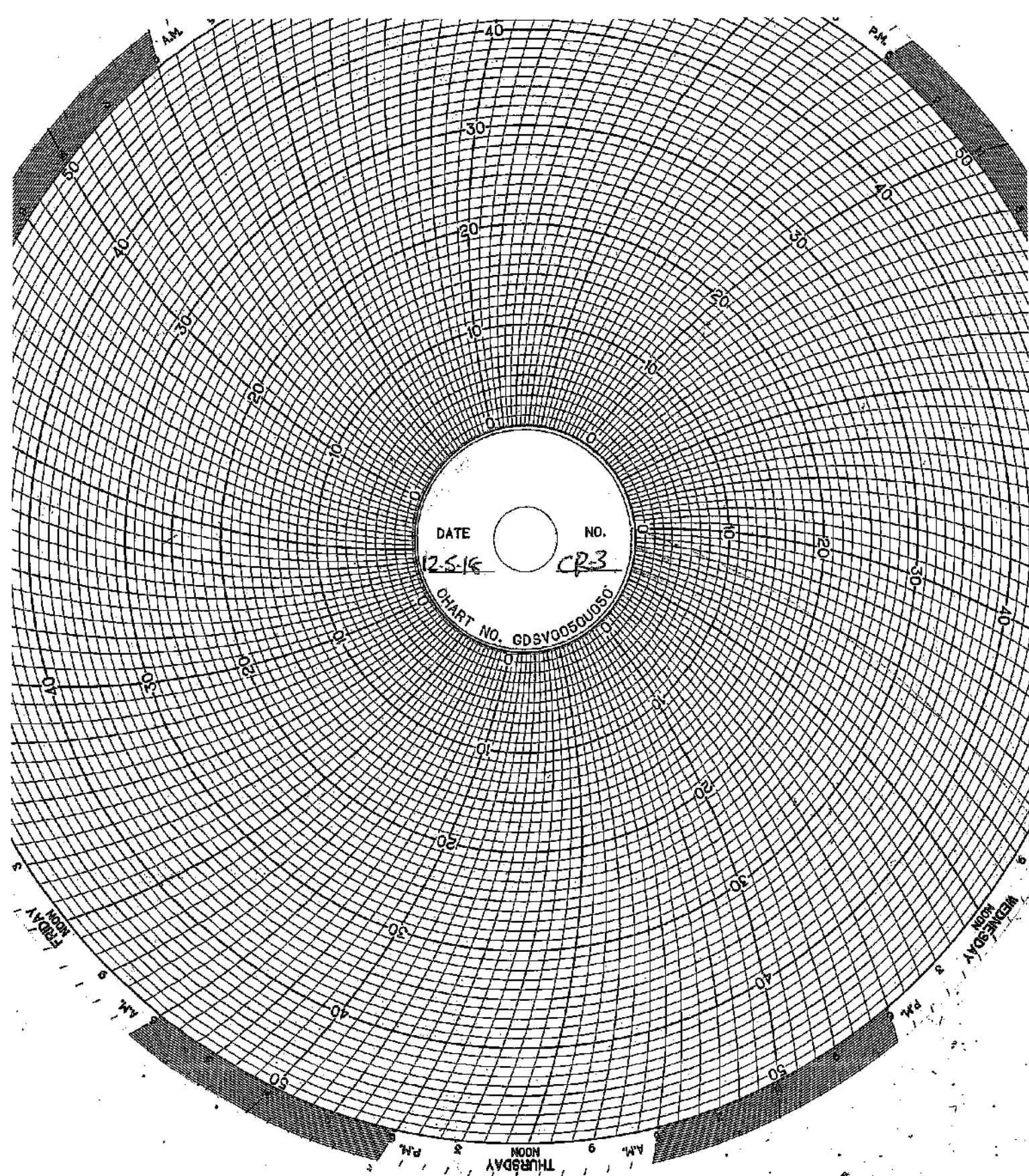
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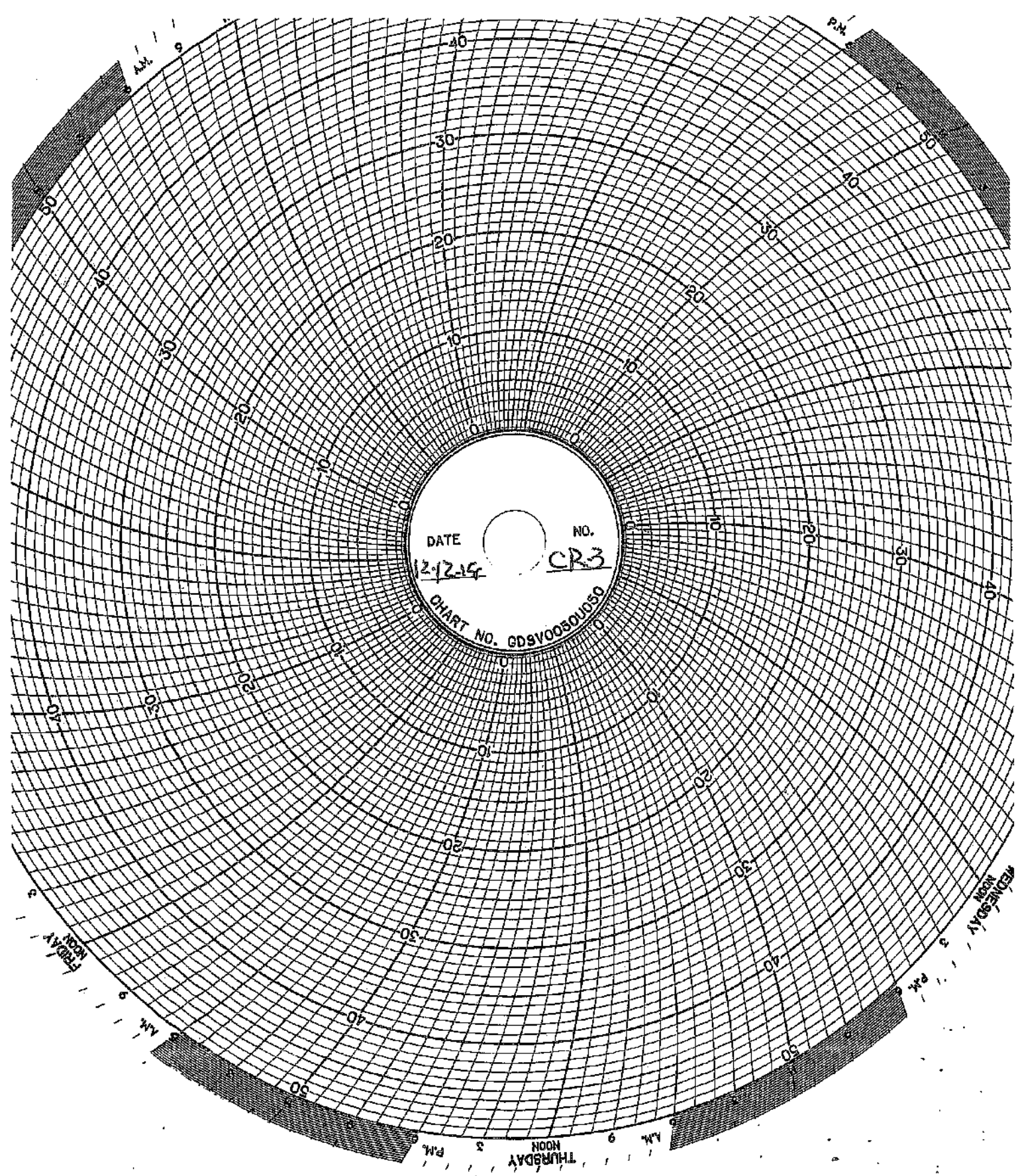
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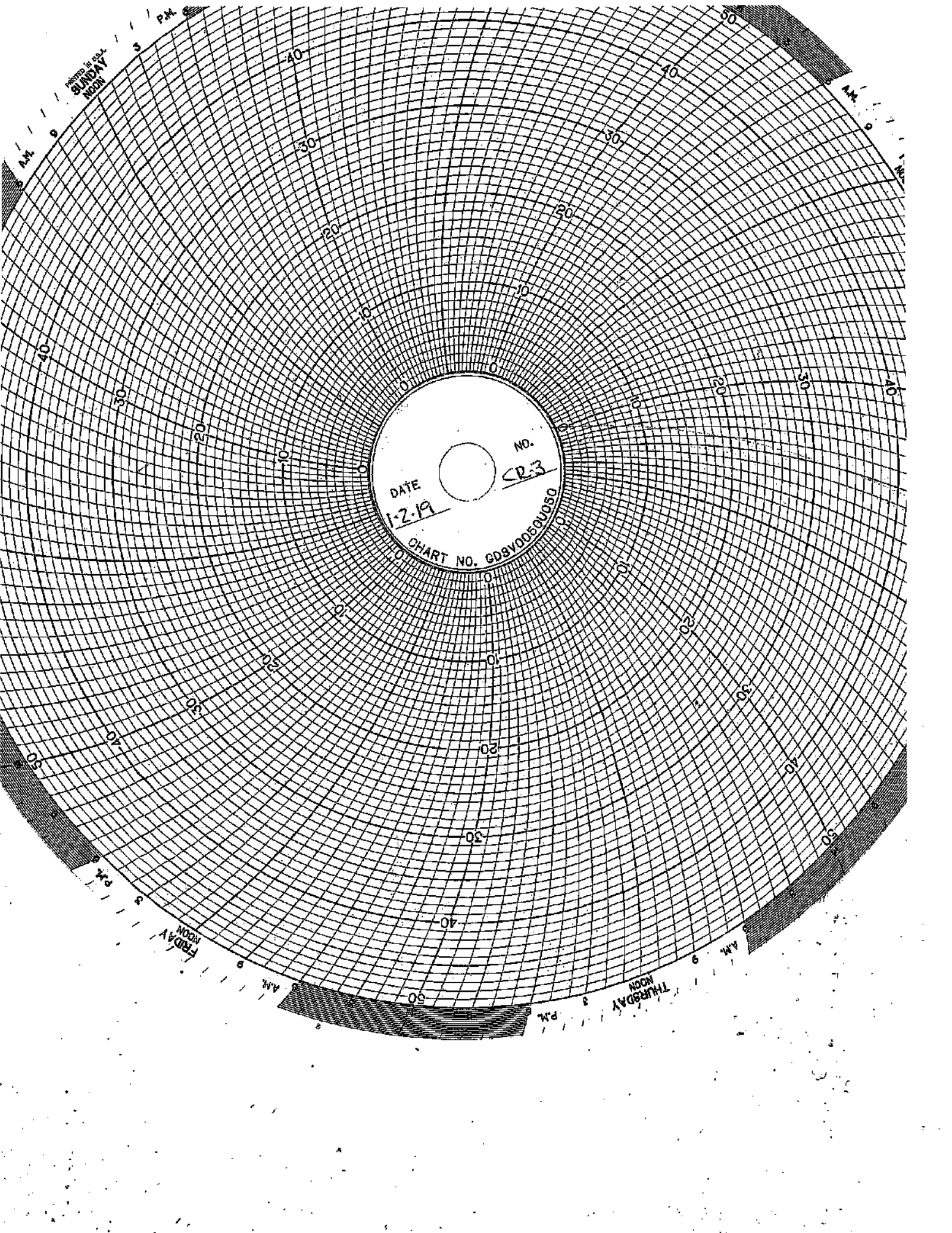
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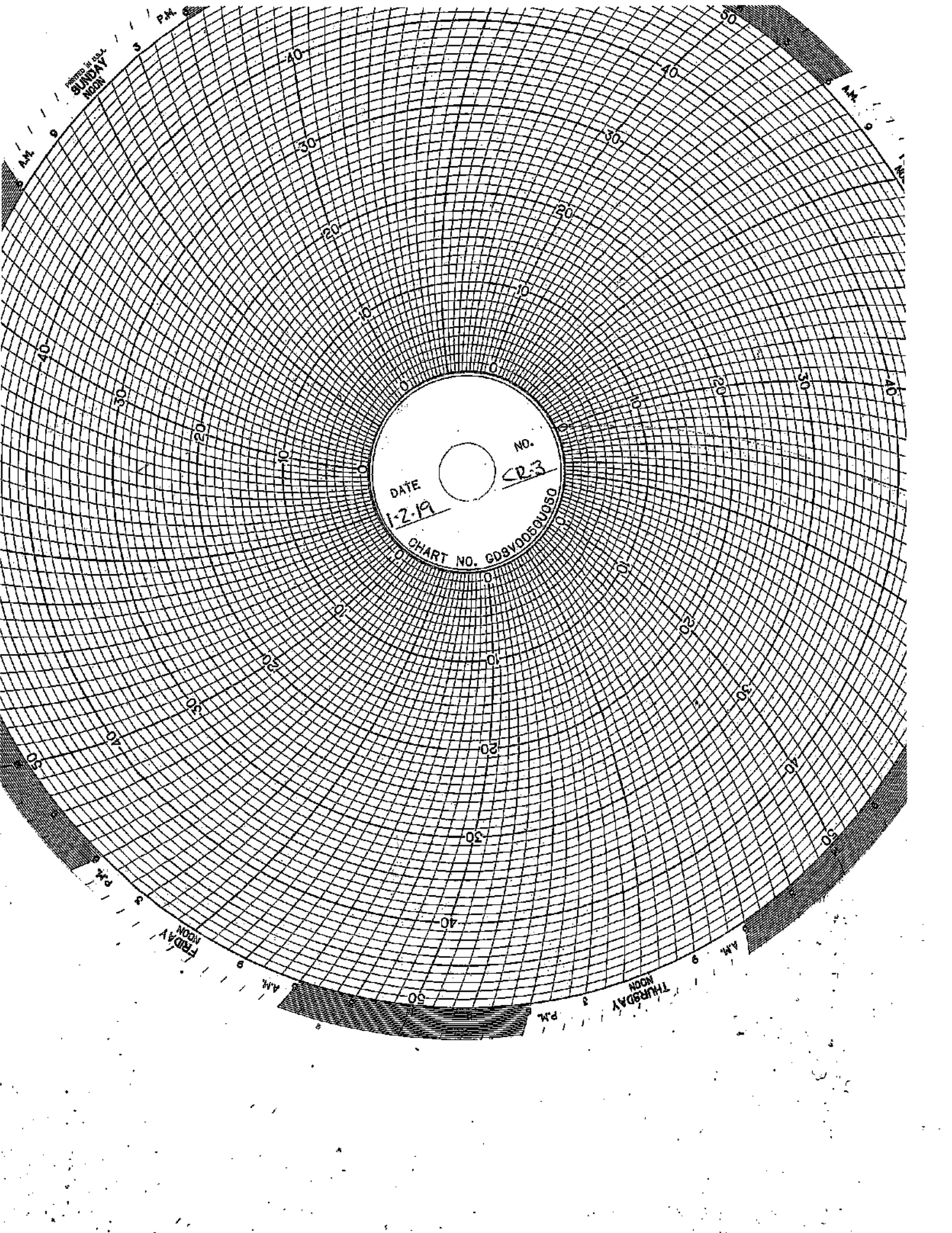
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MAINTENANCE LOG

UIC Monthly Maintenance Log

No Maintenance This Month

CORROSION MONITORING

CORROSION MONITORING COUPONS BASELINE VISUAL DESCRIPTION

November 4, 2013

Fiberglass

The fiberglass coupon is Red Box 2000 type and is 2-1/2 inches long by 1/2 inch wide and 1/4 inches thick. It is a dark orange (rust) in color with a glossy shine on one side a polished look on the opposite side and the cut edges look sanded.

Hastelloy

The hastelloy coupon is identified as C276 with serial number 1. The dimensions of the coupon are 3 inches long by 1/2 inch wide and 1/4 inch thick. The coupon is silver in color with a lightly sandblasted surface.

Stainless Steel

The stainless steel coupon is identified as 316L with serial number C1562. The dimensions of the coupon are 3 inches long by 1/2 inch wide and 1/4 inch thick. The coupon is silver in color with a lightly sandblasted surface.

CORROSION MONITORING COUPONS VISUAL DESCRIPTION

December, 2018

Fiberglass Coupon

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, wicking and blemishes. Low injection this month.

Hastelloy Coupon

This coupon is identified as C276 with Serial Number 5. The coupon is silver in color with a lightly sandblasted texture. It is clean and free of pits, cracks, and blemishes. There appears to be no effect on this coupon. Low injection this month.

Stainless Steel Coupon

No change since last month. Low injection this month.

**CORROSION MONITORING PLAN
COUPON SUMMARY**

Date	Hastelloy (C267)	Stainless Steel (316L)	Fiberglass (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	
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	
6/12/2015	13.334 g	9.126 g	6.819 g	
7/27/2015	13.337 g	9.127 g	6.818 g	
8/26/2015	13.337 g	9.022 g	6.780 g	
9/21/2015	13.336 g	8.987 g	6.792 g	
10/19/2015	13.335 g	8.985 g	6.797 g	
11/16/2015	13.334 g	8.982 g	6.788 g	
12/17/2015	13.334 g	8.933 g	6.791 g	
1/29/2016	13.334 g	8.931 g	6.788 g	New stainless steel coupon
2/16/2016	13.332 g	8.799 g	6.757 g	
3/31/2016	13.339 g	9.286 g	7.005 g	
4/22/2016	13.333 g	8.590 g	6.744 g	
5/31/2016	13.334 g	6.084 g	6.784 g	
6/30/2016	13.328 g	10.942 g	6.793 g	
8/3/2016	13.326 g	10.529 g	6.743 g	
8/29/2016	13.325 g	10.020 g	6.723 g	
10/27/2016	13.325 g	8.765 g	6.708 g	
11/29/2016	13.327 g	8.571 g	6.740 g	
12/12/2016	13.323 g	8.223 g	6.717 g	
1/3/2017	13.325 g	8.059 g	6.712 g	
2/28/2017	13.324 g	7.634 g	6.727 g	
3/24/2017	13.325 g	7.370 g	6.732 g	
4/28/2017	13.325 g	6.736 g	6.736 g	
5/11/2017	13.323 g	7.352 g	6.689 g	
6/12/2017	13.323 g	7.357 g	6.689 g	
7/5/2017	13.323 g	7.355 g	6.689 g	
8/30/2017	13.324 g	7.353 g	18.105 g	
9/28/2017	13.325 g	7.352 g	18.060 g	
10/11/2017	13.324 g	7.350 g	18.038 g	
11/16/2017	13.325 g	7.363 g	18.047 g	
12/12/2017	13.326 g	7.308 g	18.307 g	

**CORROSION MONITORING PLAN
COUPON SUMMARY**

Date	Hastelloy	Stainless Steel	Fiberglass	
1/29/2018	13.326 g	10.930 g	18.027 g	New stainless steel coupon
2/9/2018	13.325 g	10.932 g	18.044 g	
3/19/2018	13.325 g	10.926 g	18.030 g	
4/16/2018	13.336 g	10.863 g	18.068 g	
5/17/2018	13.325 g	10.858 g	18.037 g	
6/20/2018	13.325 g	10.855 g	18.029 g	
7/12/2018	13.326 g	10.852 g	18.032 g	
8/21/2018	13.326 g	10.854 g	18.031 g	
9/14/2018	13.326 g	10.852 g	18.036 g	
10/10/2018	13.326 g	10.851 g	18.031 g	
11/20/2018	13.326 g	10.853 g	18.032 g	
12/11/2018	13.326 g	10.852 g	18.033 g	

GHSQUIERE PLASTIC TESTING, INC.

20480 HARPER AVENUE
HARPER WOODS, MI 48225
PHONE (313) 885-3535
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 Citrix 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:

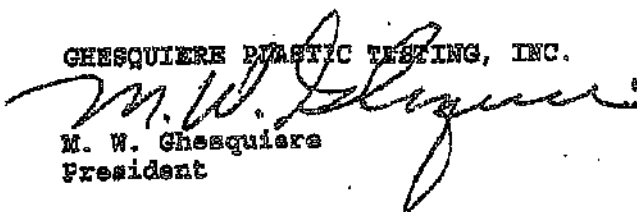
The following determination was made based upon the above test:

BARCOL HARDNESS

	<u>Hardness</u>
Specimen 1	90

Specimen is being returned with this report for further evaluation.

GHSQUIERE PLASTIC TESTING, INC.


M. W. Ghesquiere
President

MWG/kni

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TOTAL 1 PAGES

GHESEQUIERE PLASTIC TESTING, INC.

20460 HARPER AVENUE
HARPER WOODS, MI 48226
PHONE (313) 885-3635
FAX (313) 885-4771

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:

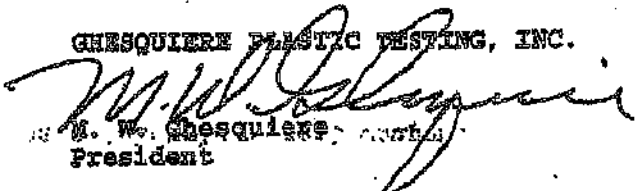
BARCOL HARDNESS

Hardness

Specimen 1: 90

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

GHESEQUIERE 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



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
Sr. Project Technician

Approved By:

Jim Drummond
Physical & Plastics Testing, Manager



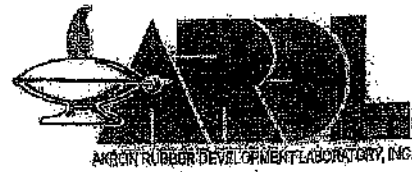
An A2LA ISO 17025 Accredited Testing Laboratory — Certificate Numbers 255.01 & 255.02
ISO 9001:2008 Registered



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www.ardl.com

2887 Gilchrist Rd. | Akron, Ohio 44305 | answers@ardl.com
Toll Free: (800) 836-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

www.arl.com

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



Progress Through Innovation, Technology and Customer Satisfaction

October 22, 2015

• TEST REPORT •

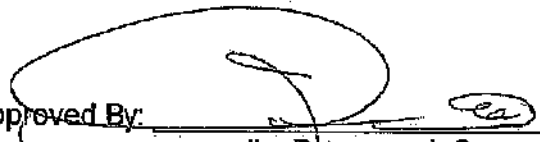
PN 125322
PO 00154

PLASTICS TESTING DEPARTMENT

Prepared For:

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

Prepared By: 
Melissa Martin
Sr. Project Technician

Approved By: 
Jim Drummond, Sr.
Physical & Plastic Testing, Manager



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AKRON RUBBER DEVELOPMENT LABORATORY, INC.

Progress Through Innovation, Technology and Customer Satisfaction

October 22, 2015

John Frost
Environmental Geo-Technologies, LLC

Page 2 of 2
PN 125322

SUBJECT: Barcol Hardness on one material.

RECEIVED: One small section identified as; Fiberglass Coupon.

BARCOL HARDNESS ASTM D 2583-13a
Instant Reading

Results

Barcol Hardness, Instant

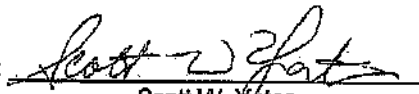
96

Prepared By:



Melissa Martin
Sr. Project Technician

Approved By:



Scott W. Yates
Plastics Testing Assistant Manager

tc

December 12, 2016

TEST REPORT

PN 132662
PO

PLASTICS TESTING DEPARTMENT

Prepared For:

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

Prepared By:


Melissa Martin
Senior Project Technician

Rev 041916

Approved By:


Jim Durnmont
Physical Testing, Manager



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December 12, 2016

John Frost
Environmental Geo-Technologies, LLC

Page 2 of 2
PN 132662

SUBJECT: Barcol Hardness on one (1) material.

RECEIVED: One (1) small section identified as; Fiberglass Coupon.

BARCOL HARDNESS ASTM D 2583-13a
Instant Reading

RESULTS

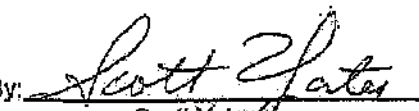
Barcol Hardness, Instant 96

Prepared By:



Melissa Martin
Senior Project Technician

Approved By:



Scott Yates
Plastics Testing, Assistant Manager

wk

ARDL is ISO 17025 accredited by A2LA for the test methods listed on the certificates referenced on page one. NOTE: Non-ISO 17025 accredited test methods are designated with the * symbol to differentiate from ISO 17025 accredited methods in the body of the test report.



Progress Through Innovation, Technology and Customer Satisfaction

December 13, 2017

TEST REPORT

PN 139140

PO#

PLASTIC TESTING DEPARTMENT

Prepared For:

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

Prepared By:

Melissa Martin
Sr Project Technician

Approved By:

Jim Drummond
Rubber & Plastic Testing, Manager

Rev 041916



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December 13, 2017

John Frost
Environmental Geo-Technologies, LLC

Page 2 of 2
PN 139140

SUBJECT: Barcol Hardness on one material.

RECEIVED: One small section identified as; Fiberglass Coupon.

BARCOL HARDNESS ASTM D 2583-13a
Instant Reading

Results

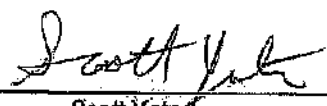
Barcol Hardness, Instant

96

Prepared By:


Melissa Martin
Sr Project Technician

Approved By:


Scott Yates
Plastics Testing, Assistant Manager

SC

ARDL is ISO 17025 accredited by A2LA for the test methods listed on the certificates referenced on page one. NOTE: Non-ISO 17025 accredited test methods are designated with the ^ symbol to differentiate from ISO 17025 accredited methods in the body of the test report.

**INJECTION
FINGERPRINTS**

**WASTE STREAMS
CHARACTERIZATIONS**

01370

EZ Profile™



Requested Facility: _____ Unsure Profile Number: _____

Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION

- 1. Generator Name: _____
- 2. Site Address: _____
(City, State, ZIP) _____
- 3. County: _____
- 4. Contact Name: _____
- 5. Email: _____
- 6. Phone: _____ 7. Fax: _____
- 8. Generator EPA ID: _____ N/A
- 9. State ID: _____ N/A

B. BILLING INFORMATION

- 1. Billing Name: _____
- 2. Billing Address: _____
(City, State, ZIP) _____
- 3. Contact Name: _____
- 4. Email: _____
- 5. Phone: _____
- 6. WM Hauled? Yes No
- 7. P.O. Number: _____
- 8. Payment Method: Credit Account Cash Credit Card

C. MATERIAL INFORMATION

- 1. Common Name: 5% PENT HYDROCHLORIC ACID See Attached
Describe Process Generating Material: CLEANING OF STEEL PRIOR GALVANIZING
- 2. Material Composition and Contaminants: See Attached

1. WATER	50-90%
2. HYDROCHLORIC ACID	4-20%
3. TRON	2-10%
4. ZINC (NOT FINE OR DUST)	2-10%
Total comp. must be equal to or greater than 100% <u>≥100%</u>	
- 3. State Waste Codes: _____ N/A
- 4. Color: GREENISH
- 5. Physical State at 70°F: Solid Liquid Other
- 6. Free Liquid Range Percentage: 99 to 100 N/A
- 7. pH: 0.0 to 2.0 N/A
- 8. Strong Odors? Yes No Describe: ACIDIC
- 9. Flash Point: <140°F 140°-199°F ≥200°F N/A

D. REGULATORY INFORMATION

- 1. EPA Hazardous Waste? Yes* No
Code: DD02, DD08, DD07, DD08
- 2. State Hazardous Waste? Yes No
Code: _____
- 3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes* No
- 4. Contains Underlying Hazardous Constituents? Yes* No
- 5. From an industry regulated under Benzene NESHAP? Yes* No
- 6. Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
- 7. CERCLA or State-mandated clean-up? Yes* No
- 8. NRC or State-regulated radioactive or NORM waste? Yes* No
*If Yes, see Addendum (page 2) for additional questions and space.
- 9. Contains PCBs? Yes No
 - a. Regulated by 40 CFR 761? Yes No
 - b. Remediation under 40 CFR 761.61 (a)? Yes No
 - c. Were PCB Imported into the US? Yes No
- 10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
- 11. Contains Asbestos? Yes No
→ If Yes: Non-Friable Non-Friable - Regulated Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

- 1. Analytical attached: Yes
Please identify applicable samples and/or lab reports:

- 2. Other information attached (such as MSDS)? Yes

F. SHIPPING AND DOT INFORMATION

- 1. One-Time Event Repeat Event/Ongoing Business
- 2. Estimated Quantity/Unit of Measure: 100,000
 Tons Yards Drums Gallons Other: _____
- 3. Container Type and Size: 500 gal tanker
- 4. USDOT Proper Shipping Name: _____ N/A
REG. UNDER WASTE CORROSIVE LIQUID, ACID, INORGANIC, N.O.S., 8.1

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261.1 Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that the information contained in this Profile is accurate and complete.

Name (Print): _____
Title: _____
Company: _____

Certification Signature

acceptable
12.21.18

THINK GREEN®

QUESTIONS? CALL 800 853 4776 FOR ASSISTANCE

Revised June 30, 2015 ©2015 Waste Management



01370 EZ Profile™ Addendum



Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1):

If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1):

If more space is needed, please attach additional pages.

5.	VOCs	0
6.		0
7.		
8.		
9.		
Total composition must be equal to or greater than 100%		≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No
- c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No
- d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? Yes No

→ If Yes, please check one of the following:

- Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
- Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.

2. State Hazardous Waste → Please list all state waste codes: _____

3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:

- Delisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
- Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. Yes No
- b. Does this material contain benzene? Yes No
- 1. If yes, what is the flow-weighted average concentration? _____ ppmw
- c. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg
- d. Is this waste soil from a remediation? Yes No
- 1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
- e. Does the waste contain >10% water/moisture? Yes No
- f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No
- g. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No

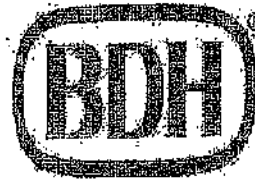
→ If yes, specify exemption: _____

h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No

6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? Yes No

7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.

8. NRC or state regulated radioactive or NORM Waste → Please identify isotopes and pCi/g: _____



Material Safety Data Sheet

Hydrochloric Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hydrochloric Acid

Synonyms/Generic Names: Aqueous Hydrogen chloride, Muriatic acid.

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Tamkin Rd. Columbus, WI. 53925

For More Information Call: 920-623-2140
(Monday – Friday 8:00-4:30)

IN CASE OF EMERGENCY CALL: CHEMTREC
(24 Hours/Day, 7 Days/Week) 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight %	Component	CAS #	EINECS# / ELINCS#	Classification*
36 - 38%	Hydrochloric Acid	7647-01-0	231-595-7	C; R35, **

*Symbol and R phrase according to EC Annex1

** Subject to the reporting requirements of SARA Title III Section 313

3. HAZARDS IDENTIFICATION

Clear, colorless solution with caustic odor.

R35 – Causes severe burns.

S1/2, S26, S30, S45

Routes of Entry: Skin, eyes, inhalation and ingestion.



Ingredients found on carcinogen lists:

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>	<u>ACGIH</u>
Hydrochloric Acid	Not Listed	Not Listed	Not Listed	Not Listed

4. FIRST AID INFORMATION

Inhalation: Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. Move casually to fresh air and keep at rest. Get medical attention if symptoms persist.

Eyes: Contact rapidly causes severe damage. Symptoms include eye burns, watering eyes. Permanent damage to cornea may result. In case of eye contact, rinse with plenty of water and seek medical attention immediately.

Skin: Severe and rapid corrosion from contact. Extent of damage depends on duration of contact. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues. Harmful if absorbed through skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

Ingestion: **Do Not Induce Vomiting!** Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain. Wash out mouth with water and give a glass of water or milk. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point:	Not Flammable
Flash Point method:	Not Applicable
Autoignition Temperature:	Not Applicable
Upper Flame Limit (volume % in air):	Not Applicable
Lower Flame Limit (volume % in air):	Not Applicable

Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.

Special fire-fighting procedures: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.

Hazardous combustion products: Emits toxic fumes under fire conditions. (See also Stability and Reactivity section).

Unusual fire and explosion hazards: Material can react with metals to produce flammable hydrogen gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Cleanup personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Prevent spillage from entering drains. Cautiously add water to spill, taking care to avoid splashing and spattering. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Any release to the environment may be subject to federal/national or local reporting requirements. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

7. HANDLING AND STORAGE

Normal handling: See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Storage: Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: (consult local authorities for acceptable exposure limits)

<u>Chemical name</u>	<u>Regulatory List</u>	<u>Value and type</u>
Hydrochloric Acid	UK OES STEL	7 mg/m ³ (10 minutes)
	USA OSHA PEL	7 mg/m ³ Ceiling
	USA ACGIH	7 mg/m ³ TLV Ceiling
	USA NIOSH	7 mg/m ³ Ceiling
	Canada TLV	7 mg/m ³
	OSHA IDLH	50 ppm
	VLE France (STEL)	7.5 mg/m ³ (15 minutes)

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

Ventilation: Provide local exhaust, preferably mechanical.

Respiratory protection: If necessary use an approved respirator with acid vapor cartridges.

Eye protection: Wear chemical safety glasses with a face shield for splash protection.

Skin and body protection: Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.

Other Recommendations: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to slight yellow liquid
Physical state:	Liquid
Odor:	Acidic
Odor Threshold:	0.25 to 10 ppm
Specific Gravity:	1.1800
pH:	1
Melting Point/Freezing Point:	-46°C (-51°F)
Boiling Point/Range:	51°C (123°F)
Flammability:	Not Flammable (See section 5)
Flash point:	Not Flammable (See section 5)
Evaporation Rate (Butyl Acetate =1):	Not Available
Explosive Limits:	Not Explosive (See section 5)
Vapor Pressure (at 20°C):	15 mmHg
Vapor Density (air =1):	1.267
Solubility:	Completely soluble in water
Partition coefficient/n-octanol/water:	Not Available
% Volatile:	Not Available
Autoignition Temperature:	See section 5

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Uncontrolled addition of water.

Incompatibility: Moisture, bases, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates, phosphorus.

Hazardous decomposition products: Carbon oxides.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects: See section 4 for symptoms of exposure and effects. Likely routes of exposure are skin, eyes and inhalation.

Target organs: Kidney, liver, mucous membranes, respiratory system, skin, eyes and cardiovascular system.

Acute Toxicity Data:

Hydrochloric acid	Lowest Published Lethal Doses (LDL/LCL)
	LDL [Man] Oral; 2857 ug/kg
	LCL [Human] - Route: Inhalation; Dose: 1300 ppm/30M
	LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M
	LD50 [oral, rat]; 700 mg/kg
	LC50 [rat]; 3124 (1 hour)

Chronic Effects: May affect liver, bleeding of nose and gums, nasal and oral mucosal ulceration, conjunctivitis, yellowing of teeth and erosion of tooth enamel, dermatitis.

Teratogenicity: Not Available

Mutagenicity: Not Available

Embryotoxicity: Not Available

Synergistic Products/Effects: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial): LD50 @ pH of 3 – 3.6
LC80 (72 hours): 56 mg/L (Daphnia Magna)

Persistence and Degradability: Not Available

Bioaccumulative Potential: Not Available

Mobility in Soil: Not Available

Other Adverse Effects: Not Available

13. DISPOSAL CONSIDERATIONS

RCRA:

- Hazardous waste? Yes RCRA ID number: D002

Waste Residues: Carefully dilute with water, neutralize per spill procedures in section 6. Neutralized material may be flushed to sewer (REGULATIONS PERMITTING) or disposed of through a licensed contractor. Users should review their operations in terms of the applicable federal/nation or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

Product containers: Containers, if thoroughly cleaned, preferably by rinsing three times and handling the rinse water as waste residues, may be disposed of or recycled as non-hazardous waste. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

DOT: UN1789, Hydrochloric Acid, 8, pg II

TDG: UN1789, Hydrochloric Acid, 8, pg II

PIN: Not Available

IDMG: UN1789, Hydrochloric Acid, 8, pg II

Marine Pollutant: No

IATA/ICAO: UN1789, Hydrochloric Acid, 8, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory.

Federal and State Regulations:

Connecticut hazardous material survey: Hydrochloric acid
Illinois toxic substances disclosure to employee act: Hydrochloric acid
Illinois chemical safety act: Hydrochloric acid
New York release reporting list: Hydrochloric acid
Rhode Island RTK hazardous substances: Hydrochloric acid
Pennsylvania RTK: Hydrochloric acid
Minnesota: Hydrochloric acid
Massachusetts RTK: Hydrochloric acid
Massachusetts spill list: Hydrochloric acid
New Jersey: Hydrochloric acid
New Jersey spill list: Hydrochloric acid
Louisiana RTK reporting list: Hydrochloric acid
Louisiana spill reporting: Hydrochloric acid
California Director's List of Hazardous Substances: Hydrochloric acid

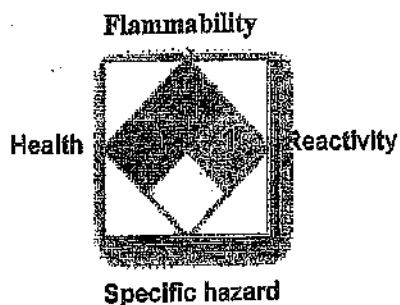
SARA 302/304/311/312 extremely hazardous substances: Hydrochloric Acid
SARA 313 toxic chemical notification and release reporting: Hydrochloric Acid
CERCLA: Hazardous Substances: Hydrochloric Acid, 5000lbs.

California Proposition 65: No
WHMIS Canada: Class E - corrosive liquid.
Class D-2A - Material causing other toxic effects (very toxic)
DSCL (EEC): R35 - Causes severe burns.

HMIS (U.S.A.)



**National Fire
Protection
Association (U.S.A.)**



Protective Equipment:



ADR (Europe):



TDG (Canada):



DSCL (Europe):



1. OTHER INFORMATION

Current Issue Date: November 30, 2005
Previous Issue Date: N/A
Prepared by: Sherry Brock (920) 623-2140

Disclaimer: Columbus Chemical Industries, Inc. ("Columbus") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Columbus has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. COLUMBUS MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.

01371

EZ Profile™



Requested Facility: _____ Unsure Profile Number: _____
 Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: _____
2. Site Address: _____
(City, State, Zip): _____
3. County: _____
4. Contact Name: _____
5. Email: _____
6. Phone: _____ 7. Fax: _____
8. Generator EPA ID: _____ N/A
9. State ID: _____ N/A

B. BILLING INFORMATION

1. Billing Name: _____
2. Billing Address: _____
(City, State, Zip): _____
3. Contact Name: _____
4. Email: _____
5. Phone: _____
6. Billing Cycle: _____
7. W/M Invoiced? Yes No
8. P.O. Number: _____
9. Payment Method: Credit Account Cash Credit Card

C. MATERIAL INFORMATION

1. Common Name: **SPENT HYDROCHLORIC ACID**
Describe Process Generating Material: See Attached
CLEANING OF STEEL PRIOR GALVANIZING
2. Material Composition and Contaminants: See Attached
3. WATER 80-90%
4. HYDROCHLORIC ACID 4-20%
5. IRON 2-10%
6. ZINC (NOT FUME OR DUST) 2-10%
Total comp. must be equal to or greater than 100% 100%
3. State Waste Codes: _____ N/A
4. Color: **GREENISH**
5. Physical State at 70°F: Solid Liquid Other: _____
6. Free Liquid Range Percentage: 99 to 100 N/A
7. pH: 0.0 to 2.0 N/A
8. Strong Odors: Yes No Describe: **ACIDIC**
9. Flash Point: <140°F 140-199°F >200°F N/A

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? Yes* No
Code: **D002, D005, D007, D101**
2. State Hazardous Waste? Yes No
Code: _____
3. Is this material non-hazardous due to Treatment, Delfisting, or an Exclusion? Yes* No
4. Contains Underlying Hazardous Constituents? Yes* No
5. From an industry regulated under Benzene NESHAP? Yes* No
6. Facility remediation subject to 40 CFR 83 GGGGG? Yes* No
7. CERCLA or State-mandated clean-up? Yes* No
8. NRC or State-regulated radioactive or NORM waste? Yes* No
*If Yes, see Addendum (page 2) for additional questions and space.
9. Contains PCBs? Yes No
a. Regulated by 40 CFR 761? Yes No
b. Remediation under 40 CFR 761.61 (a)? Yes No
c. Were PCB imported into the US? Yes No
10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
11. Contains Asbestos? Yes No
→ If Yes: Non-Friable Non-Friable - Regulated Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached: Yes
Please identify applicable samples and/or lab reports:

2. Other information attached (such as MSDS): Yes

F. SHIPPING AND DOT INFORMATION

1. One-Time Event Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: **100,000**
 Tons Yards Drums Gallons Other: _____
3. Container Type and Size: **NORMAL 5000 GAL TANKOR**
4. USDOT Proper Shipping Name: _____ N/A
DOT UN2824, WASTE CORROSIVE LIQUID ACID, INHIBITED, N.O.S. 8

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261.4 Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the generator, I have conferred with the Generator that I am authorized to sign this EZ Profile™ form.

Name (Print): _____
Title: _____
Company: _____

Certification Signature _____

acceptable
[Signature]
12.21.18

THINK GREEN!

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

Revised June 30, 2015
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EZ Profile™ Addendum

01371



Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1):

If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1):

If more space is needed, please attach additional pages.

5.	VOCs	0
6.		
7.		
8.		
9.		
Total composition must be equal to or greater than 100%		≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No
- c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No
- d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? Yes No

→ If Yes, please check one of the following:

- Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
- Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.

2. State Hazardous Waste → Please list all state waste codes: _____

3. For material that is Treated, Deltisted, or Excluded → Please indicate the category, below:

- Deltisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
- Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. Yes No
- b. Does this material contain benzene? Yes No
- 1. If yes, what is the flow-weighted average concentration? _____ ppmw
- c. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg
- d. Is this waste soil from a remediation? Yes No
- 1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
- e. Does the waste contain >10% water/moisture? Yes No
- f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No
- g. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No
- If yes, specify exemption: _____
- h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No

6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? Yes No

7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.

8. NRC or state regulated radioactive or NORM Waste → Please identify isotopes and pCi/g: _____

THINK GREEN!

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

Revised June 30, 2015
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Material Safety Data Sheet

Hydrochloric Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hydrochloric Acid

Synonyms/Generic Names: Aqueous Hydrogen chloride, Muriatic acid.

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd. Columbus, WI. 53925

For More Information Call: 920-623-2140
(Monday – Friday 8:00-4:30)

IN CASE OF EMERGENCY CALL: CHEMTREC
(24 Hours/Day, 7 Days/Week) 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight %	Component	CAS #	EINECS# / ELINCS#	Classification*
36 - 38%	Hydrochloric Acid	7647-01-0	231-595-7	C; R35, **

*Symbol and R phrase according to EC Annex1

** Subject to the reporting requirements of SARA Title III Section 313

3. HAZARDS IDENTIFICATION

Clear, colorless solution with caustic odor.

R35 – Causes severe burns.

S1/2, S26, S30, S45

Routes of Entry: Skin, eyes, inhalation and ingestion.



Ingredients found on carcinogen lists:

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>	<u>ACGIH</u>
Hydrochloric Acid	Not Listed	Not Listed	Not Listed	Not Listed

4. FIRST AID INFORMATION

Inhalation: Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. Move casualty to fresh air and keep at rest. Get medical attention if symptoms persist.

Eyes: Contact rapidly causes severe damage. Symptoms include eye burns, watering eyes. Permanent damage to cornea may result. In case of eye contact, rinse with plenty of water and seek medical attention immediately.

Skin: Severe and rapid corrosion from contact. Extent of damage depends on duration of contact. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues. Harmful if absorbed through skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

Ingestion: **Do Not Induce Vomiting!** Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain. Wash out mouth with water and give a glass of water or milk. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point:	Not Flammable
Flash Point method:	Not Applicable
Autoignition Temperature:	Not Applicable
Upper Flame Limit (volume % in air):	Not Applicable
Lower Flame Limit (volume % in air):	Not Applicable

Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.

Special fire-fighting procedures: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.

Hazardous combustion products: Emits toxic fumes under fire conditions. (See also Stability and Reactivity section).

Unusual fire and explosion hazards: Material can react with metals to produce flammable hydrogen gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Cleanup personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Prevent spillage from entering drains. Cautiously add water to spill, taking care to avoid splashing and spattering. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Any release to the environment may be subject to federal/national or local reporting requirements. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

7. HANDLING AND STORAGE

Normal handling: See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Storage: Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: (consult local authorities for acceptable exposure limits)

<u>Chemical name</u>	<u>Regulatory List</u>	<u>Value and type</u>
Hydrochloric Acid	UK OES STEL	7 mg/m ³ (10 minutes)
	USA OSHA PEL	7 mg/m ³ Ceiling
	USA ACGIH	7 mg/m ³ TLV Ceiling
	USA NIOSH	7 mg/m ³ Ceiling
	Canada TLV	7 mg/m ³
	OSHA IDLH	50 ppm
	VLE France (STEL)	7.5 mg/m ³ (15 minutes)

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

Ventilation: Provide local exhaust, preferably mechanical.

Respiratory protection: If necessary use an approved respirator with acid vapor cartridges.

Eye protection: Wear chemical safety glasses with a face shield for splash protection.

Skin and body protection: Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.

Other Recommendations: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to slight yellow liquid
Physical state:	Liquid
Odor:	Acidic
Odor Threshold:	0.25 to 10 ppm
Specific Gravity:	1.1800
pH:	1
Melting Point/Freezing Point:	-46°C (-51°F)
Boiling Point/Range:	51°C (123°F)
Flammability:	Not Flammable (See section 5)
Flash point:	Not Flammable (See section 5)
Evaporation Rate (Butyl Acetate =1):	Not Available
Explosive Limits:	Not Explosive (See section 5)
Vapor Pressure (at 20°C):	15 mmHg
Vapor Density (air =1):	1.267
Solubility:	Completely soluble in water
Partition coefficient/n-octanol/water:	Not Available
% Volatile:	Not Available
Autoignition Temperature:	See section 5

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Uncontrolled addition of water.

Incompatibility: Moisture, bases, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates, phosphorus.

Hazardous decomposition products: Carbon oxides.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects: See section 4 for symptoms of exposure and effects. Likely routes of exposure are skin, eyes and inhalation.

Target organs: Kidney, liver, mucous membranes, respiratory system, skin, eyes and cardiovascular system.

Acute Toxicity Data:

Hydrochloric acid	Lowest Published Lethal Doses (LDL/LCL)
	LDL [Man] Oral; 2857 ug/kg
	LCL [Human] - Route: Inhalation; Dose: 1300 ppm/30M
	LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M
	LD50 [oral, rat]; 700 mg/kg
	LC50 [rat]; 3124 (1 hour)

Chronic Effects: May affect liver, bleeding of nose and gums, nasal and oral mucosal ulceration, conjunctivitis, yellowing of teeth and erosion of tooth enamel, dermatitis.

Teratogenicity: Not Available

Mutagenicity: Not Available

Embryotoxicity: Not Available

Synergistic Products/Effects: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial): LD50 @ pH of 3 – 3.6
LC80 (72 hours): 56 mg/L (Daphnia Magna)

Persistence and Degradability: Not Available

Bioaccumulative Potential: Not Available

Mobility in Soil: Not Available

Other Adverse Effects: Not Available

13. DISPOSAL CONSIDERATIONS

RCRA:

Hazardous waste? Yes RCRA ID number: D002

Waste Residues: Carefully dilute with water, neutralize per spill procedures in section 6. Neutralized material may be flushed to sewer (REGULATIONS PERMITTING!) or disposed of through a licensed contractor. Users should review their operations in terms of the applicable federal/nation or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

Product containers: Containers, if thoroughly cleaned, preferably by rinsing three times and handling the rinse water as waste residues, may be disposed of or recycled as non-hazardous waste. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

DOT: UN1789, Hydrochloric Acid, 8, pg II

TDG: UN1789, Hydrochloric Acid, 8, pg II

PIN: Not Available

IDMG: UN1789, Hydrochloric Acid, 8, pg II

Marine Pollutant: No

IATA/ICAO: UN1789, Hydrochloric Acid, 8, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory.

Federal and State Regulations:

Connecticut hazardous material survey: Hydrochloric acid
Illinois toxic substances disclosure to employee act: Hydrochloric acid
Illinois chemical safety act: Hydrochloric acid
New York release reporting list: Hydrochloric acid
Rhode Island RTK hazardous substances: Hydrochloric acid
Pennsylvania RTK: Hydrochloric acid
Minnesota: Hydrochloric acid
Massachusetts RTK: Hydrochloric acid
Massachusetts spill list: Hydrochloric acid
New Jersey: Hydrochloric acid
New Jersey spill list: Hydrochloric acid
Louisiana RTK reporting list: Hydrochloric acid
Louisiana spill reporting: Hydrochloric acid
California Director's List of Hazardous Substances: Hydrochloric acid

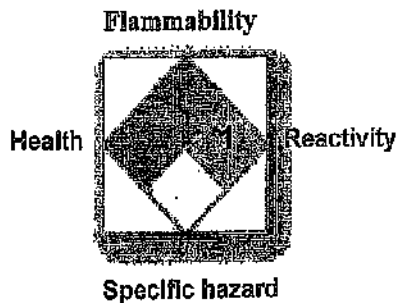
SARA 302/304/311/312 extremely hazardous substances: Hydrochloric Acid
SARA 313 toxic chemical notification and release reporting: Hydrochloric Acid
CERCLA: Hazardous Substances: Hydrochloric Acid, 5000lbs.

California Proposition 65: No
WHMIS Canada: Class E - corrosive liquid.
Class D-2A - Material causing other toxic effects (very toxic)
DSCL (EEC): R35 - Causes severe burns.

HMS (U.S.A.)

Health Hazard	3
Reactivity	2

**National Fire
Protection
Association (U.S.A.)**



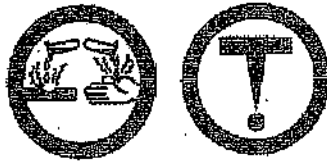
Protective Equipment:



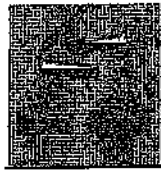
ADR (Europe):



TDG (Canada):



DSCL (Europe):



1. OTHER INFORMATION

Current Issue Date: November 30, 2005
Previous Issue Date: N/A
Prepared by: Sherry Brock (920) 623-2140

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01372

EZ Profile™



Requested Facility: _____ Unsure Profile Number: _____

Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

- 1. Generator Name: _____
- 2. Site Address: _____
(City, State, ZIP)
- 3. County: _____
- 4. Contact Name: _____
- 5. Email: _____
- 6. Phone: _____ 7. Fax: _____
- 8. Generator EPA ID: _____ N/A
- 9. State ID: _____ N/A

B. BILLING INFORMATION

- 1. Billing Name: _____
- 2. Billing Address: _____
(City, State, ZIP)
- 3. Contact Name: _____
- 4. Email: _____
- 5. Phone: _____
- 6. W/M Hauled? Yes No
- 7. P.O. Number: _____
- 8. Payment Method: Credit Account Cash Credit Card

C. MATERIAL INFORMATION

- 1. Common Name: SPENT HYDROCHLORIC ACID
- Describe Process Generating Material: See Attached
CLEANING OF STEEL PRIOR GALVANIZING
- 2. Material Composition and Contaminants: See Attached

1. WATER	60-80%
2. HYDROCHLORIC ACID	4-20%
3. IRON	2-10%
4. ZINC (NOT FINE OR DUST)	2-10%
Total comp. must be equal to or greater than 100% <input checked="" type="checkbox"/> ≥100%	
- 3. State Waste Codes: _____ N/A
- 4. Color: GREENISH
- 5. Physical State at 70 F: Solid Liquid Other
- 6. Free Liquid Range Percentage: 88 to 100 N/A
- 7. pH: 0.0 to 2.0 N/A
- 8. Strong Odor: Yes No Describe: ACIDIC
- 9. Flash Point: <140°F 140-199°F ≥200°F N/A

D. REGULATORY INFORMATION

- 1. EPA Hazardous Waste? Yes* No
Code: D002, D006, D007, D008
- 2. State Hazardous Waste? Yes No
Code: _____
- 3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes* No
- 4. Contains Underlying Hazardous Constituents? Yes* No
- 5. From an Industry regulated under Benzene NESHAP? Yes* No
- 6. Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
- 7. CERCLA or State-mandated clean-up? Yes* No
- 8. NRC or State-regulated radioactive or NORM waste? Yes* No
- *If Yes, see Addendum (page 2) for additional questions and space.
- 9. Contains PCBs? → If Yes, answer a, b and c. Yes No
 - a. Regulated by 40 CFR 761? Yes No
 - b. Remediation under 40 CFR 761.61 (a)? Yes No
 - c. Were PCB imported into the US? Yes No
- 10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
- 11. Contains Asbestos? Yes No
→ If Yes: Non-Friable Non-Friable - Regulated Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

- 1. Analytical attached Yes
Please identify applicable samples and/or lab reports:

- 2. Other information attached (such as MSDS)? Yes

F. SHIPPING AND DOT INFORMATION

- 1. One-Time Event Repeat Event/Ongoing Business
- 2. Estimated Quantity/Unit of Measure: 60,000
 Tons Yards Drums Gallons Other: _____
- 3. Container Type and Size: Non-hal. 55 gal tank
- 4. US DOT Proper Shipping Name: _____ N/A
REG. UNRES. WASTE CORROSIVE LIQUID ACID, INORGANIC, N.O.S., B.I.

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information is true and accurate. Certification Signature

Name (Print): _____
Title: _____
Company: _____

acceptable
12/21/18

THINK GREEN®

QUESTIONS? CALL 800 869 4776 FOR ASSISTANCE

Revised June 30, 2015 ©2015 Waste Management

01372



EZ Profile™ Addendum



Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): _____ If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1): _____ If more space is needed, please attach additional pages.

5.	VOCs	-0-
6.		?
7.		
8.		
9.		
Total composition must be equal to or greater than 100%		≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No
- c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No
- d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? Yes No
 - If Yes, please check one of the following:
 - Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
 - Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.

2. State Hazardous Waste → Please list all state waste codes: _____

3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:
 Delisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
 Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. Yes No
- b. Does this material contain benzene? Yes No
 - 1. If yes, what is the flow-weighted average concentration? _____ ppmw #
- c. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg
- d. Is this waste soil from a remediation? Yes No
 - 1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
- e. Does the waste contain >10% water/moisture? Yes No
- f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No
- g. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No
 - If yes, specify exemption: _____

h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No

6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? Yes No

7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.

8. NRC or state regulated radioactive or NORM Waste → Please identify isotopes and pCi/g: _____



Material Safety Data Sheet

Hydrochloric Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hydrochloric Acid

Synonyms/Generic Names: Aqueous Hydrogen chloride, Muriatic acid.

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd. Columbus, WI. 53925

For More Information Call: 920-623-2140
(Monday – Friday 8:00-4:30)

IN CASE OF EMERGENCY CALL: CHEMTREC
(24 Hours/Day, 7 Days/Week) 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight %	Component	CAS #	EINECS#/ ELINCS#	Classification*
36 - 38%	Hydrochloric Acid	7647-01-0	231-595-7	C; R35, **

*Symbol and R phrase according to EC Annex1

** Subject to the reporting requirements of SARA Title III Section 313

3. HAZARDS IDENTIFICATION

Clear, colorless solution with caustic odor.

R35 – Causes severe burns.

S1/2, S26, S30, S45

Routes of Entry: Skin, eyes, inhalation and ingestion.



Ingredients found on carcinogen lists:

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>	<u>ACGIH</u>
Hydrochloric Acid	Not Listed	Not Listed	Not Listed	Not Listed

4. FIRST AID INFORMATION

Inhalation: Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. Move casualty to fresh air and keep at rest. Get medical attention if symptoms persist.

Eyes: Contact rapidly causes severe damage. Symptoms include eye burns, watering eyes. Permanent damage to cornea may result. In case of eye contact, rinse with plenty of water and seek medical attention immediately.

Skin: Severe and rapid corrosion from contact. Extent of damage depends on duration of contact. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues. Harmful if absorbed through skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

Ingestion: Do Not Induce Vomiting! Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain. Wash out mouth with water and give a glass of water or milk. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point:	Not Flammable
Flash Point method:	Not Applicable
Autoignition Temperature:	Not Applicable
Upper Flame Limit (volume % in air):	Not Applicable
Lower Flame Limit (volume % in air):	Not Applicable

Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.

Special fire-fighting procedures: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.

Hazardous combustion products: Emits toxic fumes under fire conditions. (See also Stability and Reactivity section).

Unusual fire and explosion hazards: Material can react with metals to produce flammable hydrogen gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Cleanup personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Prevent spillage from entering drains. Cautiously add water to spill, taking care to avoid splashing and spattering. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Any release to the environment may be subject to federal/national or local reporting requirements. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

7. HANDLING AND STORAGE

Normal handling: See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Storage: Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: (consult local authorities for acceptable exposure limits)

<u>Chemical name</u>	<u>Regulatory List</u>	<u>Value and type</u>
Hydrochloric Acid	UK OES STEL	7 mg/m ³ (10 minutes)
	USA OSHA PEL	7 mg/m ³ Ceiling
	USA ACGIH	7 mg/m ³ TLV Ceiling
	USA NIOSH	7 mg/m ³ Ceiling
	Canada TLV	7 mg/m ³
	OSHA IDLH	50 ppm
	VLE France (STEL)	7.5 mg/m ³ (15 minutes)

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

Ventilation: Provide local exhaust, preferably mechanical.

Respiratory protection: If necessary use an approved respirator with acid vapor cartridges.

Eye protection: Wear chemical safety glasses with a face shield for splash protection.

Skin and body protection: Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.

Other Recommendations: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to slight yellow liquid
Physical state:	Liquid
Odor:	Acidic
Odor Threshold:	0,25 to 10 ppm
Specific Gravity:	1.1800
pH:	1
Melting Point/Freezing Point:	-46°C (-51°F)
Boiling Point/Range:	51°C (123°F)
Flammability:	Not Flammable (See section 5)
Flash point:	Not Flammable (See section 5)
Evaporation Rate (Butyl Acetate =1):	Not Available
Explosive Limits:	Not Explosive (See section 5)
Vapor Pressure (at 20°C):	15 mmHg
Vapor Density (air =1):	1.267
Solubility:	Completely soluble in water
Partition coefficient/n-octanol/water:	Not Available
% Volatile:	Not Available
Autoignition Temperature:	See section 5

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Uncontrolled addition of water.

Incompatibility: Moisture, bases, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates; phosphorus.

Hazardous decomposition products: Carbon oxides.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects: See section 4 for symptoms of exposure and effects. Likely routes of exposure are skin, eyes and inhalation.

Target organs: Kidney, liver, mucous membranes, respiratory system, skin, eyes and cardiovascular system.

Acute Toxicity Data:

Hydrochloric acid	Lowest Published Lethal Doses (LD ₅₀ /LCL)
	LDL [Man] Oral; 2857 ug/kg
	LCL [Human] - Route: Inhalation; Dose: 1300 ppm/30M
	LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M
	LD50 [oral, rat]; 700 mg/kg
	LC50 [rat]; 3124 (1 hour)

Chronic Effects: May affect liver, bleeding of nose and gums, nasal and oral mucosal ulceration, conjunctivitis, yellowing of teeth and erosion of tooth enamel, dermatitis.

Teratogenicity: Not Available

Mutagenicity: Not Available

Embryotoxicity: Not Available

Synergistic Products/Effects: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial): LD50 @ pH of 3 – 3.6
LC80 (72 hours): 58 mg/L (Daphnia Magna)

Persistence and Degradability: Not Available

Bioaccumulative Potential: Not Available

Mobility in Soil: Not Available

Other Adverse Effects: Not Available

13. DISPOSAL CONSIDERATIONS

RCRA:

Hazardous waste? Yes RCRA ID number: D002

Waste Residues: Carefully dilute with water, neutralize per spill procedures in section 6. Neutralized material may be flushed to sewer (REGULATIONS PERMITTING) or disposed of through a licensed contractor. Users should review their operations in terms of the applicable federal/nation or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

Product containers: Containers, if thoroughly cleaned, preferably by rinsing three times and handling the rinse water as waste residues, may be disposed of or recycled as non-hazardous waste. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

DOT: UN1789, Hydrochloric Acid, 8, pg II

TDG: UN1789, Hydrochloric Acid, 8, pg II

PIN: Not Available

IDMG: UN1789, Hydrochloric Acid, 8, pg II

Marine Pollutant: No

IATA/ICAO: UN1789, Hydrochloric Acid, 8, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory.

Federal and State Regulations:

Connecticut hazardous material survey: Hydrochloric acid
Illinois toxic substances disclosure to employee act: Hydrochloric acid
Illinois chemical safety act: Hydrochloric acid
New York release reporting list: Hydrochloric acid
Rhode Island RTK hazardous substances: Hydrochloric acid
Pennsylvania RTK: Hydrochloric acid
Minnesota: Hydrochloric acid
Massachusetts RTK: Hydrochloric acid
Massachusetts spill list: Hydrochloric acid
New Jersey: Hydrochloric acid
New Jersey spill list: Hydrochloric acid
Louisiana RTK reporting list: Hydrochloric acid
Louisiana spill reporting: Hydrochloric acid
California Director's List of Hazardous Substances: Hydrochloric acid

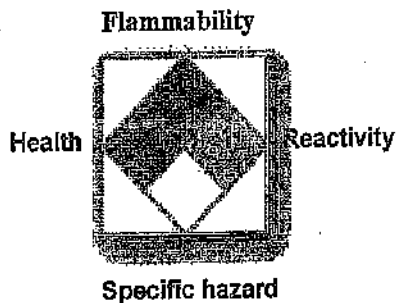
SARA 302/304/311/312 extremely hazardous substances: Hydrochloric Acid
SARA 313 toxic chemical notification and release reporting: Hydrochloric Acid
CERCLA: Hazardous Substances: Hydrochloric Acid, 5000lbs.

California Proposition 65: No
WHMIS Canada: Class E - corrosive liquid.
Class D-2A - Material causing other toxic effects (very toxic)
DSCL (EEC): R35 - Causes severe burns.

HMIS (U.S.A.)



**National Fire
Protection
Association (U.S.A.)**



Protective Equipment:



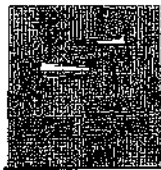
ADR (Europe):



TDG (Canada):



DSCL (Europe):



1. OTHER INFORMATION

Current Issue Date: November 30, 2005
Previous Issue Date: N/A
Prepared by: Sherry Brock (920) 623-2140

Disclaimer: Columbus Chemical Industries, Inc. ("Columbus") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Columbus has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. COLUMBUS MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.

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EZ Profile™



Requested Facility: _____ Unsure Profile Number: _____
 Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)
1. Generator Name: _____
2. Site Address: _____
(City, State, ZIP): _____
3. County: _____
4. Contact Name: _____
5. Email: _____
6. Phone: _____ 7. Fax: _____
8. Generator EPA ID: _____ N/A
9. State ID: _____ N/A

B. BILLING INFORMATION
1. Billing Name: _____
2. Billing Address: _____
(City, State, ZIP): _____
3. Contact Name: _____
4. Email: _____
5. Phone: _____
6. WM Hauled: _____
8. P.O. Number: _____
9. Payment Method: Credit Account Cash Credit Card

C. MATERIAL INFORMATION
1. Common Name: SPENT HYDROCHLORIC ACID
Describe Process Generating Material: See Attached
CLEANING OF STEEL PRIOR GALVANIZING
2. Material Composition and Contaminants: See Attached
1. WATER: 60-90%
2. HYDROCHLORIC ACID: 4-20%
3. IRON: 2-10%
4. ZINC (NOT FUME OR DUST): 2-10%
Total comp. must be equal to or greater than 100% 2100%
3. State Waste Codes: _____ N/A
4. Color: GREENISH
5. Physical State at 70°F: Solid Liquid Other: _____
6. Free Liquid Range: Percentage: 99 to 100 N/A
7. pH: 0.0 to 2.0 N/A
8. Strong Odor: Yes No Describe: ACIDIC
9. Flash Point: < 140°F 140-199°F > 200°F N/A

D. REGULATORY INFORMATION
1. EPA Hazardous Waste? Yes* No
Code: D002, D008, D007, D008
2. State Hazardous Waste? Yes No
Code: _____
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes* No
4. Contains Underlying Hazardous Constituents? Yes* No
5. From an industry regulated under Benzene NESHAP? Yes* No
6. Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
7. CERCLA or State-mandated clean-up? Yes* No
8. NRC or State-regulated radioactive or NORM waste? Yes* No
*If Yes, see Addendum (page 2) for additional questions and spaces.
9. Contains PCBs? → If Yes, answer a, b and c: Yes No
a. Regulated by 40 CFR 761? Yes No
b. Remediation under 40 CFR 761.61 (a)? Yes No
c. Were PCB imported into the US? Yes No
10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
11. Contains Asbestos? Yes No
→ If Yes: Non-Friable Non-Friable - Regulated Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION
1. Analytical attached: _____ Yes
Please identify applicable samples and/or lab reports:

2. Other information attached (such as MSDS)? Yes

F. SHIPPING AND DOT INFORMATION
1. One-Time Event Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: 120,000
 Tons Yards Drums Gallons Other: _____
3. Container Type and Size: NO. 1111 500GAL TANKER
4. US DOT Proper Shipping Name: _____ N/A
NO. 111111 WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 3.1

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)
By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that: _____
Name (Print): _____
Title: _____
Company: _____
Certification Signature: _____

acceptable
12/21/18

THINK GREEN!

QUESTIONS? CALL 800 993 4775 FOR ASSISTANCE

Revised June 30, 2015
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EZ Profile™ Addendum

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Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): _____ if more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1): _____ if more space is needed, please attach additional pages.

5.	VOCs	0
6.		22
7.		
8.		
9.		
Total composition must be equal to or greater than 100%		≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No
- c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No
- d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? Yes No
 - If Yes, please check one of the following:
 - Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
 - Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.

2. State Hazardous Waste → Please list all state waste codes: _____

3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:

- Delisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
- Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. Yes No
- b. Does this material contain benzene? Yes No
 - 1. If yes, what is the flow-weighted average concentration? _____ ppmw
 - c. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg
 - d. Is this waste soil from a remediation? Yes No
 - 1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
 - e. Does the waste contain >10% water/moisture? Yes No
 - f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No
 - g. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No
 - If yes, specify exemption: _____
 - h. Based on your knowledge of your waste and the BIVON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No

6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? Yes No

7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.

8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: _____



Material Safety Data Sheet

Hydrochloric Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hydrochloric Acid

Synonyms/Generic Names: Aqueous Hydrogen chloride, Muriatic acid.

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd. Columbus, WI. 53925

For More Information Call: 920-623-2140
(Monday - Friday 8:00-4:30)

IN CASE OF EMERGENCY CALL: CHEMTREC
(24 Hours/Day, 7 Days/Week) 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight %	Component	CAS #	EINECS# / ELINCS#	Classification*
36 - 38%	Hydrochloric Acid	7647-01-0	231-595-7	C; R35, **

*Symbol and R phrase according to EC Annex1

** Subject to the reporting requirements of SARA Title III Section 313

3. HAZARDS IDENTIFICATION

Clear, colorless solution with caustic odor.

R35 - Causes severe burns.

S1/2, S26, S30, S45

Routes of Entry: Skin, eyes, inhalation and ingestion.



Ingredients found on carcinogen lists:

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>	<u>ACGIH</u>
Hydrochloric Acid	Not Listed	Not Listed	Not Listed	Not Listed

4. FIRST AID INFORMATION

Inhalation: Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. Move casualty to fresh air and keep at rest. Get medical attention if symptoms persist.

Eyes: Contact rapidly causes severe damage. Symptoms include eye burns, watering eyes. Permanent damage to cornea may result. In case of eye contact, rinse with plenty of water and seek medical attention immediately.

Skin: Severe and rapid corrosion from contact. Extent of damage depends on duration of contact. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues. Harmful if absorbed through skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

Ingestion: Do Not Induce Vomiting! Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain. Wash out mouth with water and give a glass of water or milk. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point:	Not Flammable
Flash Point method:	Not Applicable
Autoignition Temperature:	Not Applicable
Upper Flame Limit (volume % in air):	Not Applicable
Lower Flame Limit (volume % in air):	Not Applicable

Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.

Special fire-fighting procedures: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.

Hazardous combustion products: Emits toxic fumes under fire conditions. (See also Stability and Reactivity section).

Unusual fire and explosion hazards: Material can react with metals to produce flammable hydrogen gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Cleanup personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Prevent spillage from entering drains. Cautiously add water to spill, taking care to avoid splashing and spattering. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Any release to the environment may be subject to federal/national or local reporting requirements. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

7. HANDLING AND STORAGE

Normal handling: See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Storage: Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: (consult local authorities for acceptable exposure limits)

<u>Chemical name</u>	<u>Regulatory List</u>	<u>Value and type</u>
Hydrochloric Acid	UK OES STEL	7 mg/m ³ (10 minutes)
	USA OSHA PEL	7 mg/m ³ Ceiling
	USA ACGIH	7 mg/m ³ TLV Ceiling
	USA NIOSH	7 mg/m ³ Ceiling
	Canada TLV	7 mg/m ³
	OSHA IDLH	50 ppm
	VLE France (STEL)	7.5 mg/m ³ (15 minutes)

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

Ventilation: Provide local exhaust, preferably mechanical.

Respiratory protection: If necessary use an approved respirator with acid vapor cartridges.

Eye protection: Wear chemical safety glasses with a face shield for splash protection.

Skin and body protection: Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.

Other Recommendations: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to slight yellow liquid
Physical state:	Liquid
Odor:	Acidic
Odor Threshold:	0,25 to 10 ppm
Specific Gravity:	1.1800
pH:	1
Melting Point/Freezing Point:	-46°C (-51°F)
Boiling Point/Range:	51°C (123°F)
Flammability:	Not Flammable (See section 5)
Flash point:	Not Flammable (See section 5)
Evaporation Rate (Butyl Acetate =1):	Not Available
Explosive Limits:	Not Explosive (See section 5)
Vapor Pressure (at 20°C):	15 mmHg
Vapor Density (air =1):	1.267
Solubility:	Completely soluble in water
Partition coefficient/n-octanol/water:	Not Available
% Volatile:	Not Available
Autoignition Temperature:	See section 5

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Uncontrolled addition of water.

Incompatibility: Moisture, bases, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates, phosphorus.

Hazardous decomposition products: Carbon oxides.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects: See section 4 for symptoms of exposure and effects. Likely routes of exposure are skin, eyes and inhalation.

Target organs: Kidney, liver, mucous membranes, respiratory system, skin, eyes and cardiovascular system.

Acute Toxicity Data:

Hydrochloric acid	Lowest Published Lethal Doses (LD/LCL)
	LDL [Man] Oral; 2857 ug/kg
	LCL [Human] - Route: Inhalation; Dose: 1300 ppm/30M
	LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M
	LD50 [oral, rat]; 700 mg/kg
	LC50 [rat]; 3124 (1 hour)

Chronic Effects: May affect liver, bleeding of nose and gums, nasal and oral mucosal ulceration, conjunctivitis, yellowing of teeth and erosion of tooth enamel, dermatitis.

Teratogenicity: Not Available

Mutagenicity: Not Available

Embryotoxicity: Not Available

Synergistic Products/Effects: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial): LD50 @ pH of 3 – 3.6
LC80 (72 hours): 56 mg/L (Daphnia Magna)

Persistence and Degradability: Not Available

Bioaccumulative Potential: Not Available

Mobility in Soil: Not Available

Other Adverse Effects: Not Available

13. DISPOSAL CONSIDERATIONS

RCRA:

Hazardous waste? Yes RCRA ID number: D002

Waste Residues: Carefully dilute with water, neutralize per spill procedures in section 6. Neutralized material may be flushed to sewer (REGULATIONS PERMITTING!) or disposed of through a licensed contractor. Users should review their operations in terms of the applicable federal/nation or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

Product containers: Containers, if thoroughly cleaned, preferably by rinsing three times and handling the rinse water as waste residues, may be disposed of or recycled as non-hazardous waste. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

DOT: UN1789, Hydrochloric Acid, 8, pg II

TDG: UN1789, Hydrochloric Acid, 8, pg II

PIN: Not Available

IDMG: UN1789, Hydrochloric Acid, 8, pg II

Marine Pollutant: No

IATA/CAO: UN1789, Hydrochloric Acid, 8, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory.

Federal and State Regulations:

Connecticut hazardous material survey: Hydrochloric acid
Illinois toxic substances disclosure to employee act: Hydrochloric acid
Illinois chemical safety act: Hydrochloric acid
New York release reporting list: Hydrochloric acid
Rhode Island RTK hazardous substances: Hydrochloric acid
Pennsylvania RTK: Hydrochloric acid
Minnesota: Hydrochloric acid
Massachusetts RTK: Hydrochloric acid
Massachusetts spill list: Hydrochloric acid
New Jersey: Hydrochloric acid
New Jersey spill list: Hydrochloric acid
Louisiana RTK reporting list: Hydrochloric acid
Louisiana spill reporting: Hydrochloric acid
California Director's List of Hazardous Substances: Hydrochloric acid

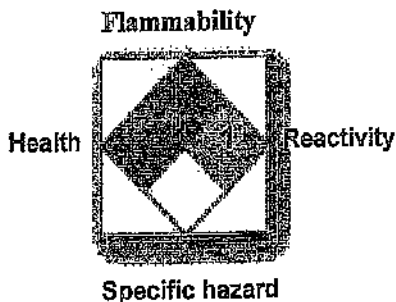
SARA 302/304/311/312 extremely hazardous substances: Hydrochloric Acid
SARA 313 toxic chemical notification and release reporting: Hydrochloric Acid
CERCLA: Hazardous Substances: Hydrochloric Acid, 5000lbs.

California Proposition 65: No
WHMIS Canada: Class E - corrosive liquid.
Class D-2A - Material causing other toxic effects (very toxic)
DSCL (EEC): R35 - Causes severe burns.

HMIS (U.S.A.)

Health Hazard	3
Reactivity	2

**National Fire
Protection
Association (U.S.A.)**



Protective Equipment:



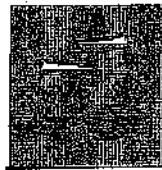
ADR (Europe):



TDG (Canada):



DSCG (Europe):



1. OTHER INFORMATION

Current Issue Date: November 30, 2005
Previous Issue Date: N/A
Prepared by: Sherry Brock (920) 623-2140

Disclaimer: Columbus Chemical Industries, Inc. ("Columbus") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Columbus has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. COLUMBUS MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.

01374

EZ Profile™



Requested Facility: _____ Unsure Profile Number: _____

Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: _____
2. Site Address: _____
(City, State, ZIP) _____
3. County: _____
4. Contact Name: _____
5. Email: _____
6. Phone: _____ 7. Fax: _____
8. Generator EPA ID: _____ N/A
9. State ID: _____ N/A

B. BILLING INFORMATION

1. Billing Name: _____
2. Billing Address: _____
(City, State, ZIP) _____
3. Contact Name: _____
4. Email: _____
5. Phone: _____
6. Billing Cycle: _____ Yes No
7. WM Hauled? Yes No
8. P.O. Number: _____
9. Payment Method: Credit Account Cash Credit Card

SAME AS GENERATOR

C. MATERIAL INFORMATION

1. Common Name: SPENT HYDROCHLORIC ACID
Describe Process Generating Material: See Attached
CLEANING OF STEEL PRIOR GALVANIZING
2. Material Composition and Contaminants: See Attached

1. WATER	80-90%
2. HYDROCHLORIC ACID	4-20%
3. IRON	2-10%
4. ZINC (NOT FUME OR DUST)	2-10%

Total comp. must be equal to or greater than 100% $\geq 100\%$

3. State Waste Codes: _____ N/A
4. Color: GREENISH
5. Physical State at 70°F: Solid Liquid Other _____
6. Free Liquid Range Percentage: 99 to 100 N/A
7. pH: 0.0 to 2.0 N/A
8. Strong Odor: Yes No Describe: ACIDIC
9. Flash Point: $\leq 140^\circ\text{F}$ 140°F - 199°F $\geq 200^\circ\text{F}$ N/A

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? Yes* No
Code: 0002, 0008, 0007, 0008
2. State Hazardous Waste? Yes No
Code: _____
3. Is this material non-hazardous due to Treatment, Listing, or an Exclusion? Yes* No
4. Contains Underlying Hazardous Constituents? Yes* No
5. From an industry regulated under Benzene NESHAP? Yes* No
6. Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
7. CERCLA or State-mandated clean-up? Yes* No
8. NRC or State-regulated radioactive or NORM waste? Yes* No
*If Yes, see Addendum (page 2) for additional questions and space.
9. Contains PCBs? Yes No
a. Regulated by 40 CFR 761? Yes No
b. Remediation under 40 CFR 761.61(a)? Yes No
c. Were PCB Imported into the US? Yes No
10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
11. Contains Asbestos? Yes No
→ If Yes: Non-Friable Non-Friable - Regulated Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached Yes
Please identify applicable samples and/or lab reports:

2. Other information attached (such as MSDS)? Yes

F. SHIPPING AND DOT INFORMATION

1. One-Time Event Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: 100,000
 Tons Yards Drums Gallons Other _____
3. Container Type and Size: NUMEROUS 5000 gal tanks
4. USDOT Proper Shipping Name: _____ N/A
RD 00264 WASTE CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 6.1

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261.4 Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator _____

Name (Print): _____
Title: _____
Company: _____

Certification Signature

accept
12.26.18

THINK GREEN:

QUESTIONS? CALL 800 863 4778 FOR ASSISTANCE

Revised June 30, 2015
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EZ Profile™ Addendum

01374



Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): _____ If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1): _____ If more space is needed, please attach additional pages.

5.	VOCs	0
6.		
7.		
8.		
9.		
Total composition must be equal to or greater than 100%		≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No
- c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No
- d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? Yes No
 - If Yes, please check one of the following:
 - Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
 - Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.

2. State Hazardous Waste → Please list all state waste codes: _____

3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:

- Delisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
- Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. Yes No
 - b. Does this material contain benzene? Yes No
 - 1. If yes, what is the flow-weighted average concentration? _____ ppmw
 - c. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg
 - d. Is this waste soil from a remediation? Yes No
 - 1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
 - e. Does the waste contain >10% water/moisture? Yes No
 - f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No
 - g. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No
 - If yes, specify exemption: _____
 - h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No
6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? Yes No
7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.
8. NRC or state regulated radioactive or NORM Waste → Please identify isotopes and pCi/g: _____



Material Safety Data Sheet

Hydrochloric Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hydrochloric Acid

Synonyms/Generic Names: Aqueous Hydrogen chloride, Muriatic acid.

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd. Columbus, WI. 53925

For More Information Call: 920-623-2140
(Monday - Friday 8:00-4:30)

IN CASE OF EMERGENCY CALL: CHEMTREC
(24 Hours/Day, 7 Days/Week) 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight %	Component	CAS #	EINECS#/ ELINCS#	Classification*
36 - 38%	Hydrochloric Acid	7647-01-0	231-595-7	C; R35, **

*Symbol and R phrase according to EC Annex1

** Subject to the reporting requirements of SARA Title III Section 313

3. HAZARDS IDENTIFICATION

Clear, colorless solution with caustic odor.

R35 - Causes severe burns.

S1/2, S26, S30, S45

Routes of Entry: Skin, eyes, inhalation and ingestion.



Ingredients found on carcinogen lists:

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>	<u>ACGIH</u>
Hydrochloric Acid	Not Listed	Not Listed	Not Listed	Not Listed

4. FIRST AID INFORMATION

Inhalation: Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. Move casualty to fresh air and keep at rest. Get medical attention if symptoms persist.

Eyes: Contact rapidly causes severe damage. Symptoms include eye burns, watering eyes. Permanent damage to cornea may result. In case of eye contact, rinse with plenty of water and seek medical attention immediately.

Skin: Severe and rapid corrosion from contact. Extent of damage depends on duration of contact. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues. Harmful if absorbed through skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

Ingestion: **Do Not Induce Vomiting!** Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain. Wash out mouth with water and give a glass of water or milk. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point:	Not Flammable
Flash Point method:	Not Applicable
Autoignition Temperature:	Not Applicable
Upper Flame Limit (volume % in air):	Not Applicable
Lower Flame Limit (volume % in air):	Not Applicable

Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.

Special fire-fighting procedures: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.

Hazardous combustion products: Emits toxic fumes under fire conditions. (See also Stability and Reactivity section).

Unusual fire and explosion hazards: Material can react with metals to produce flammable hydrogen gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Cleanup personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Prevent spillage from entering drains. Cautiously add water to spill, taking care to avoid splashing and spattering. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Any release to the environment may be subject to federal/national or local reporting requirements. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

7. HANDLING AND STORAGE

Normal handling: See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Storage: Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: (consult local authorities for acceptable exposure limits)

<u>Chemical name</u>	<u>Regulatory List</u>	<u>Value and type</u>
Hydrochloric Acid	UK OES STEL	7 mg/m ³ (10 minutes)
	USA OSHA PEL	7 mg/m ³ Ceiling
	USA ACGIH	7 mg/m ³ TLV Ceiling
	USA NIOSH	7 mg/m ³ Ceiling
	Canada TLV	7 mg/m ³
	OSHA IDLH	50 ppm
	VLE France (STEL)	7.5 mg/m ³ (15 minutes)

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

Ventilation: Provide local exhaust, preferably mechanical.

Respiratory protection: If necessary use an approved respirator with acid vapor cartridges.

Eye protection: Wear chemical safety glasses with a face shield for splash protection.

Skin and body protection: Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.

Other Recommendations: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to slight yellow liquid
Physical state:	Liquid
Odor:	Acidic
Odor Threshold:	0.25 to 10 ppm
Specific Gravity:	1.1800
pH:	1
Melting Point/Freezing Point:	-46°C (-51°F)
Boiling Point/Range:	51°C (123°F)
Flammability:	Not Flammable (See section 5)
Flash point:	Not Flammable (See section 5)
Evaporation Rate (Butyl Acetate =1):	Not Available
Explosive Limits:	Not Explosive (See section 5)
Vapor Pressure (at 20°C):	15 mmHg
Vapor Density (air =1):	1.267
Solubility:	Completely soluble in water
Partition coefficient/n-octanol/water:	Not Available
% Volatile:	Not Available
Autoignition Temperature:	See section 5

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Uncontrolled addition of water.

Incompatibility: Moisture, bases, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates, phosphorus.

Hazardous decomposition products: Carbon oxides.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects: See section 4 for symptoms of exposure and effects. Likely routes of exposure are skin, eyes and inhalation.

Target organs: Kidney, liver, mucous membranes, respiratory system, skin, eyes and cardiovascular system.

Acute Toxicity Data:

Hydrochloric acid	Lowest Published Lethal Doses (LDL/LCL)
	LDL [Man] Oral; 2867 ug/kg
	LCL [Human] - Route: Inhalation; Dose: 1300 ppm/30M
	LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M
	LD50 [oral, rat]; 700 mg/kg
	LC50 [rat]; 3124 (1 hour)

Chronic Effects: May affect liver, bleeding of nose and gums, nasal and oral mucosal ulceration, conjunctivitis, yellowing of teeth and erosion of tooth enamel, dermatitis.

Teratogenicity: Not Available

Mutagenicity: Not Available

Embryotoxicity: Not Available

Synergistic Products/Effects: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial): LD50 @ pH of 3 – 3.6
LC80 (72 hours): 56 mg/L (Daphnia Magna)

Persistence and Degradability: Not Available

Bioaccumulative Potential: Not Available

Mobility in Soil: Not Available

Other Adverse Effects: Not Available

13. DISPOSAL CONSIDERATIONS

RCRA:

Hazardous waste? Yes RCRA ID number: D002

Waste Residues: Carefully dilute with water, neutralize per spill procedures in section 6. Neutralized material may be flushed to sewer (REGULATIONS PERMITTING!) or disposed of through a licensed contractor. Users should review their operations in terms of the applicable federal/nation or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

Product containers: Containers, if thoroughly cleaned, preferably by rinsing three times and handling the rinse water as waste residues, may be disposed of or recycled as non-hazardous waste. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

DOT: UN1789, Hydrochloric Acid, 8, pg II

TDG: UN1789, Hydrochloric Acid, 8, pg II

PIN: Not Available

IDMG: UN1789, Hydrochloric Acid, 8, pg II

Marine Pollutant: No

IATA/CAO: UN1789, Hydrochloric Acid, 8, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory.

Federal and State Regulations:

Connecticut hazardous material survey: Hydrochloric acid
Illinois toxic substances disclosure to employee act: Hydrochloric acid
Illinois chemical safety act: Hydrochloric acid
New York release reporting list: Hydrochloric acid
Rhode Island RTK hazardous substances: Hydrochloric acid
Pennsylvania RTK: Hydrochloric acid
Minnesota: Hydrochloric acid
Massachusetts RTK: Hydrochloric acid
Massachusetts spill list: Hydrochloric acid
New Jersey: Hydrochloric acid
New Jersey spill list: Hydrochloric acid
Louisiana RTK reporting list: Hydrochloric acid
Louisiana spill reporting: Hydrochloric acid
California Director's List of Hazardous Substances: Hydrochloric acid

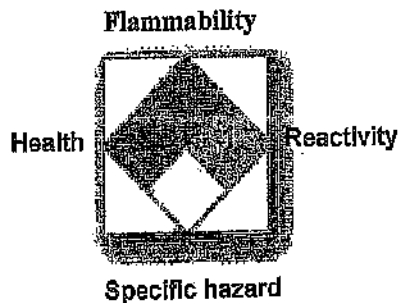
SARA 302/304/311/312 extremely hazardous substances: Hydrochloric Acid
SARA 313 toxic chemical notification and release reporting: Hydrochloric Acid
CERCLA: Hazardous Substances: Hydrochloric Acid, 5000lbs.

California Proposition 65: No
WHMIS Canada: Class E - corrosive liquid.
Class D-2A - Material causing other toxic effects (very toxic)
DSCL (EEC): R35 - Causes severe burns.

HMIS (U.S.A.)

Health Hazard	3
Reactivity	2

**National Fire
Protection
Association (U.S.A.)**



Protective Equipment:



ADR (Europe):



TDG (Canada):



DSCCL (Europe):



1. OTHER INFORMATION

Current Issue Date: November 30, 2005
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Prepared by: Sherry Brock (920) 623-2140

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