

April 30, 2014

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 fifth Monthly Report in conformance with the requirements of its two EPA UIC permits (#s MI-163-1W-C010 & MI-163-1W-C011).

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

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

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

Sincerely,



Richard J. Powals, P.E.  
Chief Operating Officer

cc: J. Frost (EGT), T. Athans (HH)

att.

043014/rjpEGTEPAMonthlyReport-March 2014

## **AVERAGE INJECTION RATE**

Calculation of Average Injection Rate

CURRENT REPORTING YEAR 2014

CURRENT REPORTING MONTH MARCH

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

CURRENT MONTH (all volumes in gallons)

	Injected Waste	Injected Non-Waste	Total injected
<b>MI-163-1W-C010 , Well #1-12</b>			
Current Month	140,593 gal	0	140,593 gal
Since facility first injected			308,383 gal
<b>MI-163-1W-C011, Well #2-12</b>			
Current Month	76,075 gal	0	76,075 gal
Since facility first injected			478,688 gal
		Lifetime Combined	787,071 gal

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 5

5 lifetime number of months of injection × 43,830 minutes/month  
= 219,150 minutes of injection

Lifetime combined injected volume 787,071 ÷ 219,150 minutes of injection  
= 3.6 gpm average injection rate

## WELL 1 DATA

**SUMMARY OF OPERATING, MONITORING AND REPORTING REQUIREMENTS**  
**Injection Well I**

Month: March

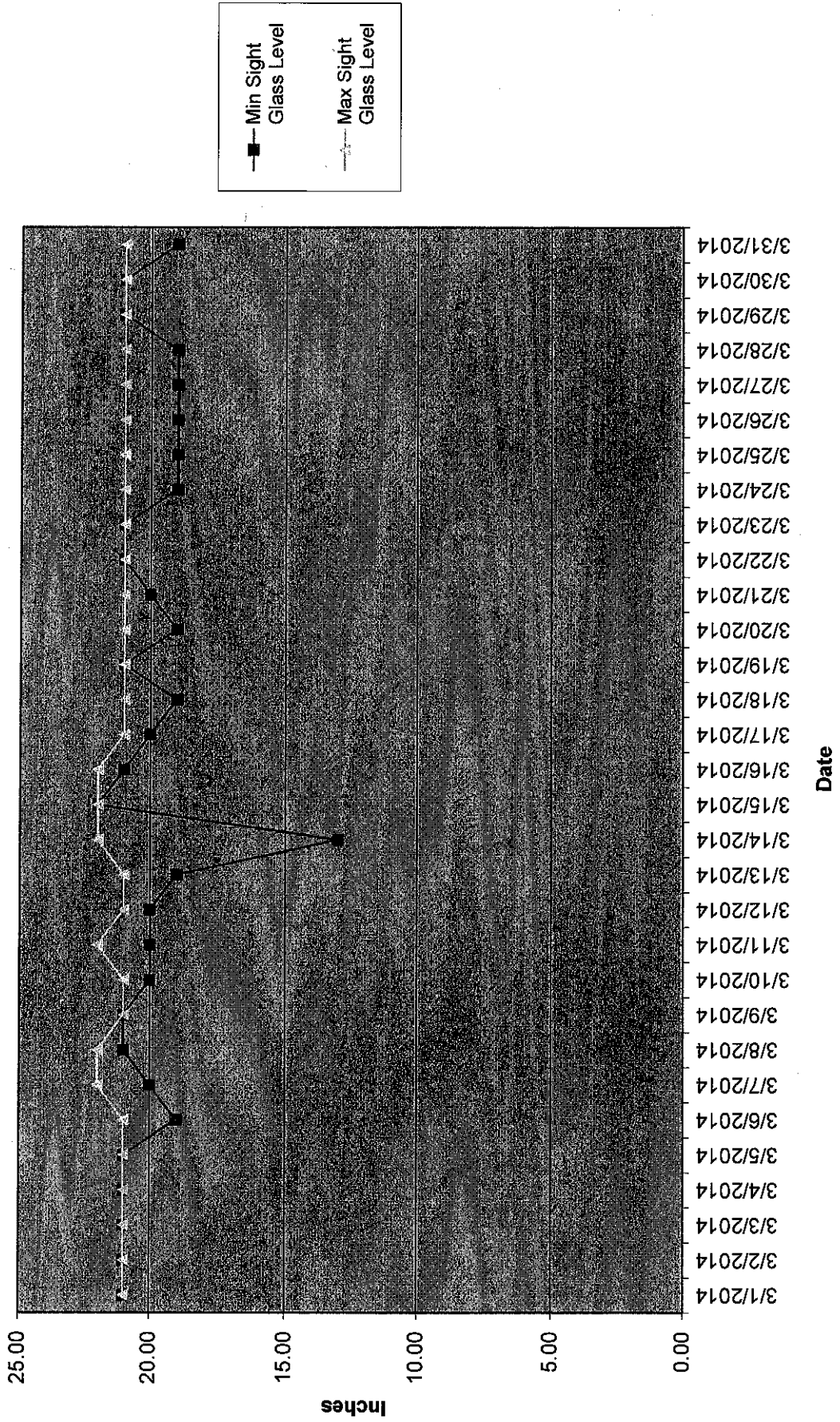
Year: 2014

<b>CHARACTERISTIC</b>	<b>LIMITATION</b>	<b>MINIMUM MONITORING FREQUENCY</b>	<b>MINIMUM REPORTING FREQUENCY</b>	<b>STATUS</b>
Injection Pressure	765 psig maximum	continuous	monthly	<b>729 psig</b>
Annulus Injection Pressure	100 psig minimum	continuous	monthly	<b>238 psig</b>
Annulus/Tubing Diff	100 psig minimum above injection pressure	continuous	monthly	<b>177 psig</b>
Injection Rate (Average both wells)	166 gpm	continuous	monthly	<b>3.6 gpm</b>
Injection Rate (Maximum instantaneous)	270 gpm	continuous	monthly	<b>90 gpm</b>
Sight Glass Level		continuous	monthly	<b>Graph attached</b>
Annulus Fluid Loss		monthly	monthly	<b>0.0 gal</b>
Cumulative Volume		daily	monthly	<b>140,593 gal</b>
Temperature		6-hour intervals	monthly	<b>Graph attached</b>
Corrosion Monitoring		monthly	monthly	<b>Report attached</b>
Repair and Maintenance		NA	monthly	<b>Log attached</b>
Toxicity Characteristic List		annually	monthly	<b>NA</b>
Fingerprint Analysis		per load	monthly	<b>Sheets attached</b>
Chemical Composition and Physical Characteristics of Injected Oilfield Brine		annually	annually	<b>NA</b>
pH of Injected Fluids		continuous	monthly	<b>Graph attached</b>

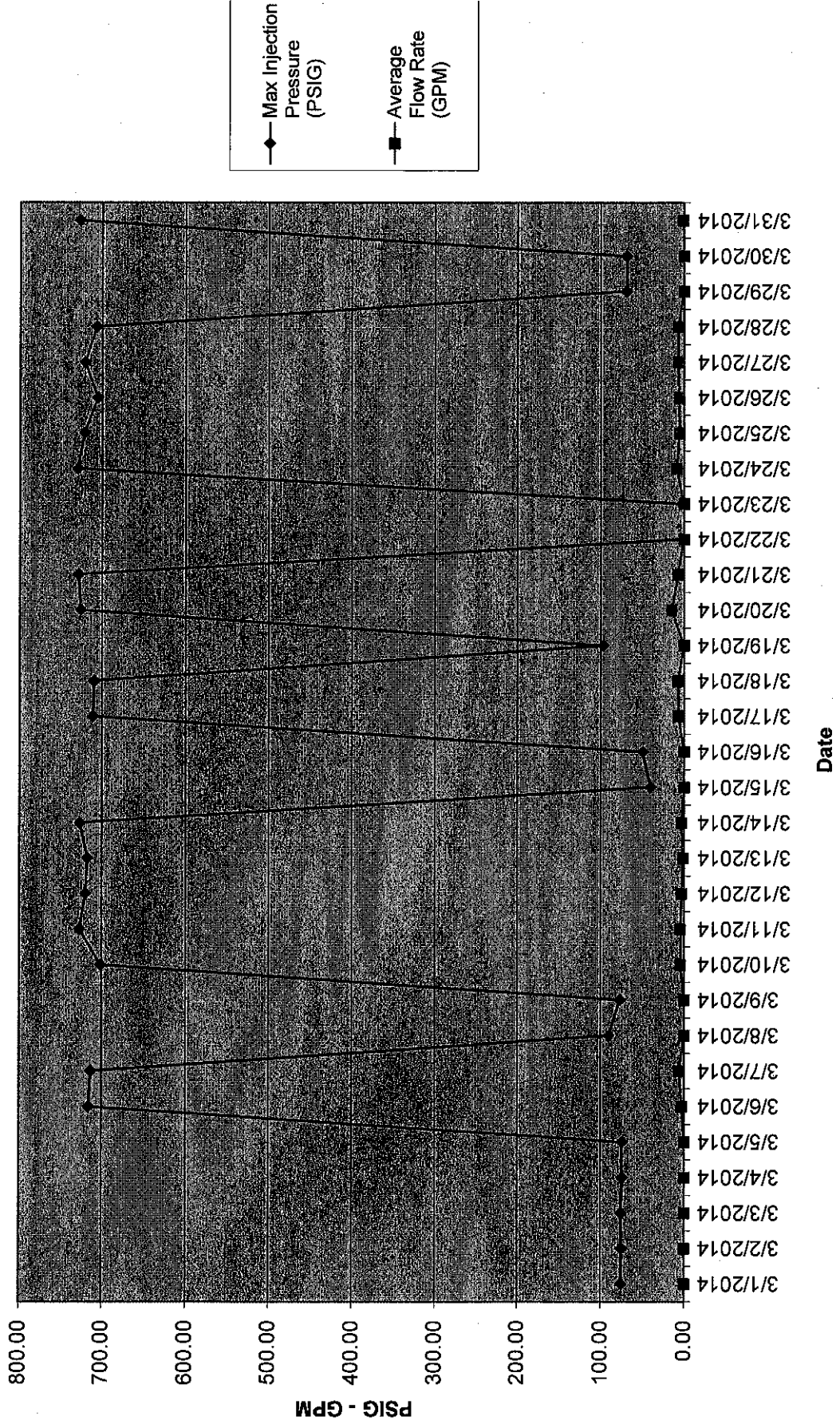
### Well 01 Monthly Data

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)	Avg Flow Rate (GPM)	Min Differential Pressure (PSIG)	Max Differential Pressure (PSIG)
3/1/2014	74.03	75.02	21.00	21.00	386.18	395.05	7.01	7.16	0.00	0.00	0.00	312.09	320.07
3/2/2014	73.37	74.12	21.00	21.00	382.76	386.24	6.76	7.22	0.00	0.00	0.00	309.35	312.18
3/3/2014	72.99	74.80	21.00	21.00	380.09	382.82	5.22	7.34	0.00	0.00	0.00	306.84	309.45
3/4/2014	73.15	73.82	21.00	21.00	378.80	380.16	6.74	7.30	0.00	0.00	0.00	305.21	306.93
3/5/2014	72.79	73.77	21.00	21.00	377.65	379.08	6.76	7.31	0.00	0.00	0.00	304.71	305.80
3/6/2014	68.83	715.82	19.00	21.00	308.56	1047.97	2.42	6.93	0.00	41.16	2.52	198.74	350.34
3/7/2014	74.78	713.05	20.00	22.00	277.58	1043.11	2.28	2.76	0.00	36.56	6.19	201.11	349.90
3/8/2014	75.29	89.51	21.00	22.00	276.41	395.58	2.52	2.79	0.00	0.00	0.00	200.03	311.62
3/9/2014	75.10	76.18	21.00	21.00	363.73	368.95	2.77	2.79	0.00	0.00	0.00	288.18	293.62
3/10/2014	75.51	701.26	20.00	21.00	343.28	986.33	2.78	12.44	0.00	45.49	4.47	194.85	346.12
3/11/2014	91.86	726.95	20.00	22.00	328.80	1028.64	8.74	10.78	0.00	40.39	4.47	202.25	357.56
3/12/2014	96.93	719.75	20.00	21.00	317.58	1046.50	9.11	10.06	0.00	26.83	3.02	201.11	353.14
3/13/2014	108.52	717.35	19.00	21.00	331.15	1053.68	6.70	10.04	0.00	16.54	1.30	189.58	348.95
3/14/2014	39.87	726.42	13.00	22.00	269.42	1050.52	1.00	9.70	0.00	25.56	3.16	203.97	349.75
3/15/2014	37.80	39.93	22.00	22.00	239.50	269.39	0.99	1.04	0.00	0.00	0.00	201.64	229.50
3/16/2014	37.19	49.11	21.00	22.00	237.61	355.08	0.73	1.07	0.00	0.00	0.00	200.03	311.17
3/17/2014	36.40	710.43	20.00	21.00	336.07	961.33	0.82	1.40	0.00	48.17	6.96	197.73	312.97
3/18/2014	95.72	709.11	19.00	21.00	339.89	1008.90	0.49	1.42	0.00	69.99	7.59	195.06	351.02
3/19/2014	94.88	96.28	21.00	21.00	394.86	396.57	1.14	1.73	0.00	0.00	0.00	298.60	301.12
3/20/2014	94.52	725.46	19.00	21.00	356.23	1020.99	0.46	1.76	0.00	81.14	15.21	196.55	350.01
3/21/2014	0.00	728.11	20.00	21.00	266.43	949.13	1.03	4.36	0.00	90.41	7.58	198.32	348.17
3/22/2014	0.01	0.01	21.00	21.00	274.75	276.09	1.26	1.38	0.00	0.00	0.00	274.74	276.08
3/23/2014	0.01	0.01	21.00	21.00	274.42	276.75	0.87	1.37	0.00	0.00	0.00	274.41	275.74
3/24/2014	0.01	729.25	19.00	21.00	254.67	1018.31	0.37	3.08	0.00	85.92	8.89	189.13	352.30
3/25/2014	69.90	720.92	19.00	21.00	353.30	1017.50	0.74	2.77	0.00	65.61	5.40	200.61	354.67
3/26/2014	93.68	705.29	19.00	21.00	364.69	968.46	0.48	2.72	0.00	51.96	6.12	188.00	348.03
3/27/2014	3.85	720.42	19.00	21.00	283.56	1014.47	0.00	3.03	0.00	71.60	6.76	186.66	382.91
3/28/2014	23.14	706.43	19.00	21.00	258.87	994.75	1.28	2.16	0.00	61.49	6.86	176.64	361.46
3/29/2014	67.70	68.89	21.00	21.00	401.95	409.87	1.93	2.38	0.00	0.00	0.00	333.07	342.13
3/30/2014	67.37	68.52	21.00	21.00	409.30	410.36	2.29	2.32	0.00	0.00	0.00	341.32	342.58
3/31/2014	67.21	726.64	19.00	21.00	394.81	1063.48	1.07	2.83	0.00	32.14	1.16	206.47	350.32

Well 1 Min/Max Sight Glass Level Chart



# Well 1 Max Injection Pressure and Avg. Flow Rate





## Circle Chart Index

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

### Chart Recorder #1

Channel #1

**Blue Pen** - Well 1 Injection Pressure

Channel #2

**Red Pen** – Well 1 Annulus Pressure

Channel #3

**Green Pen** – Well 1 Flow Rate

Channel #4

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

### Chart Recorder #2

Channel #1

**Blue Pen** – Well 2 Injection Pressure

Channel #2

**Red Pen** – Well 2 Annulus Pressure

Channel #3

**Green Pen** – Well 2 Flow Rate

Channel #4

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

### Chart Recorder #3

Channel #1

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

Channel #2

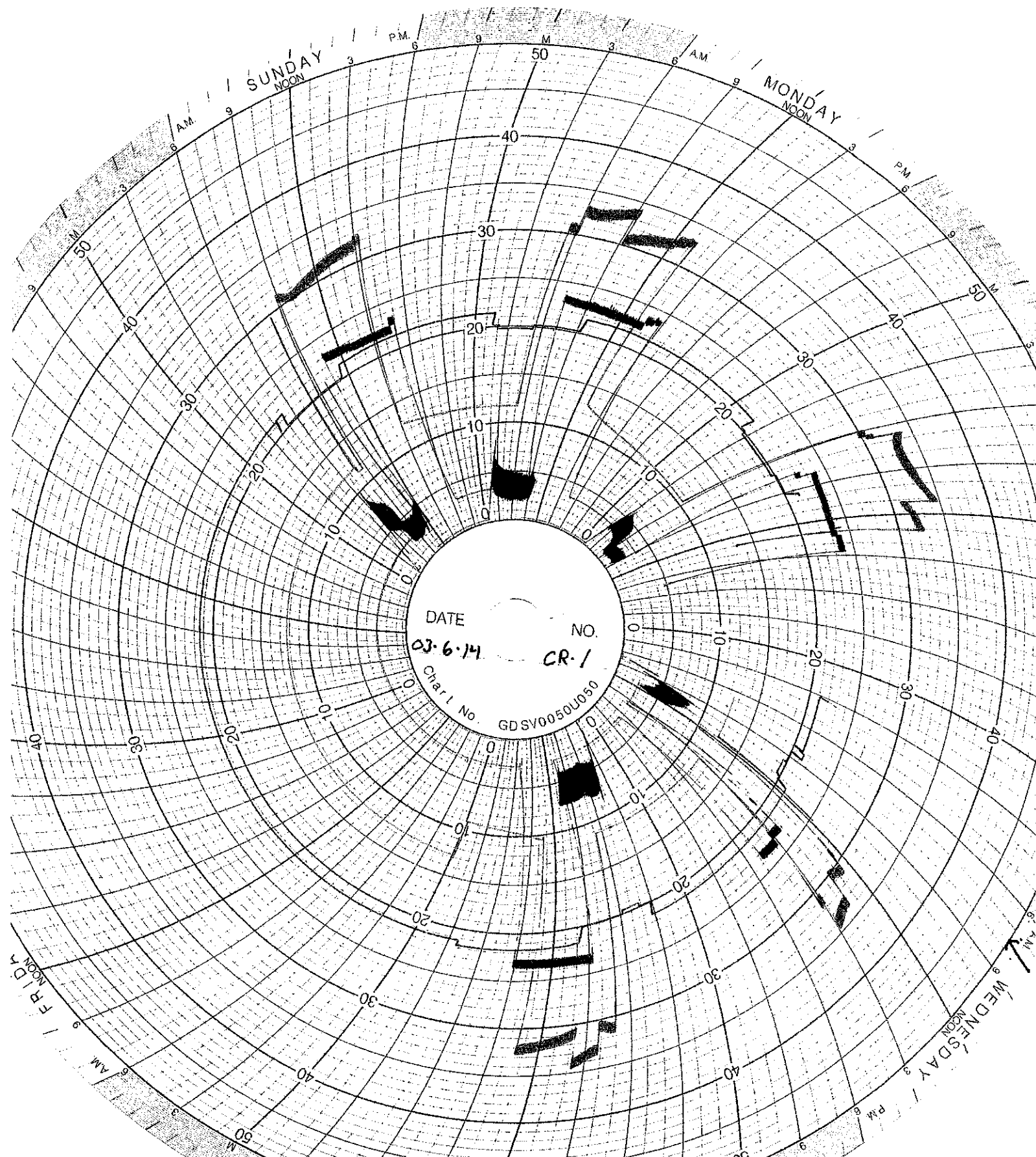
**Red Pen** – Well 1 Monthly Volume

Channel #3

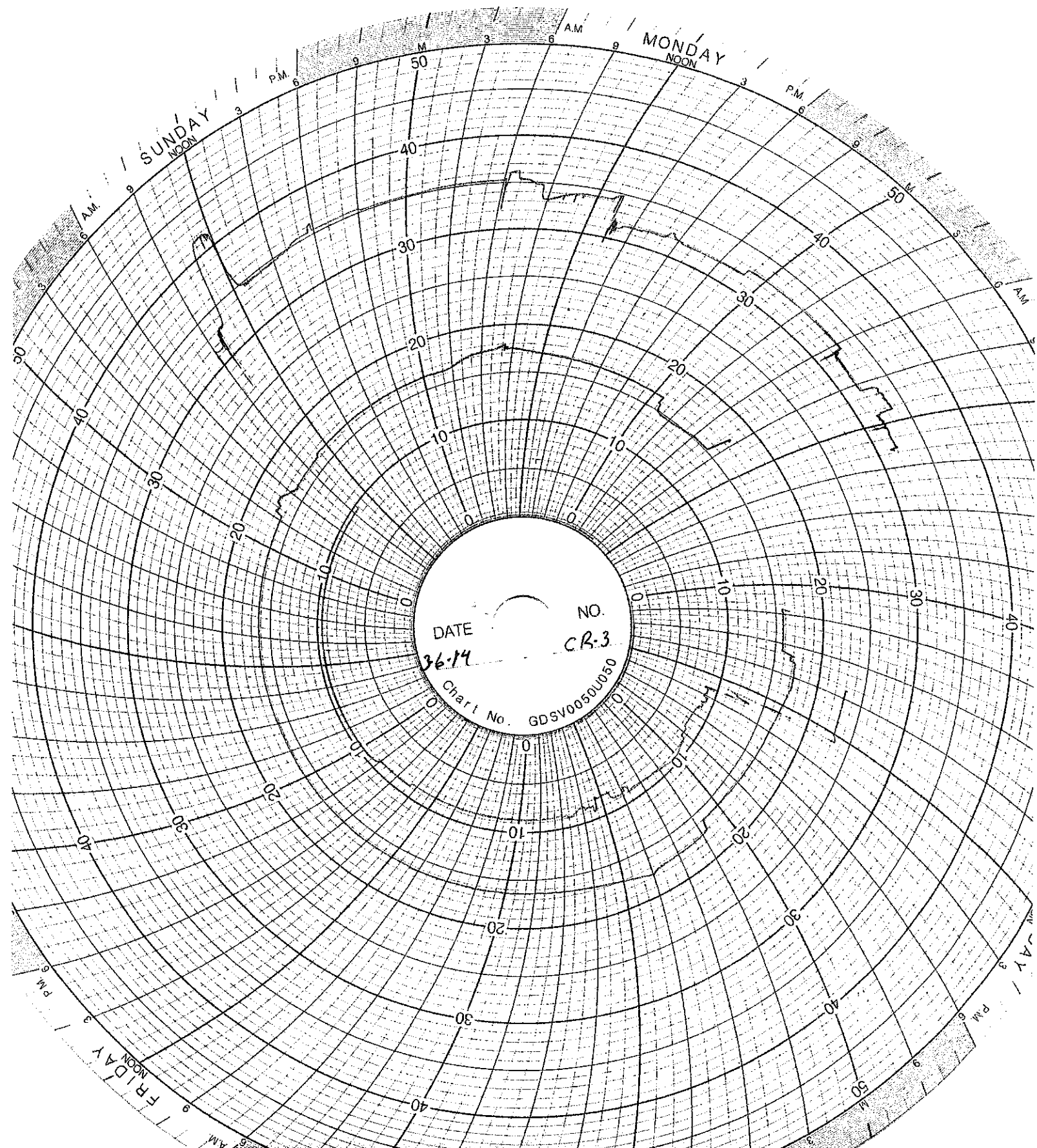
**Green Pen** – Well 2 Monthly Volume

Channel #4

**Black Pen** - Temperature



DATE 03-6-14 NO. CR-1  
Char. No. GDSV0050U050



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MONDAY  
NOON

FRIDAY  
NOON

THURSDAY

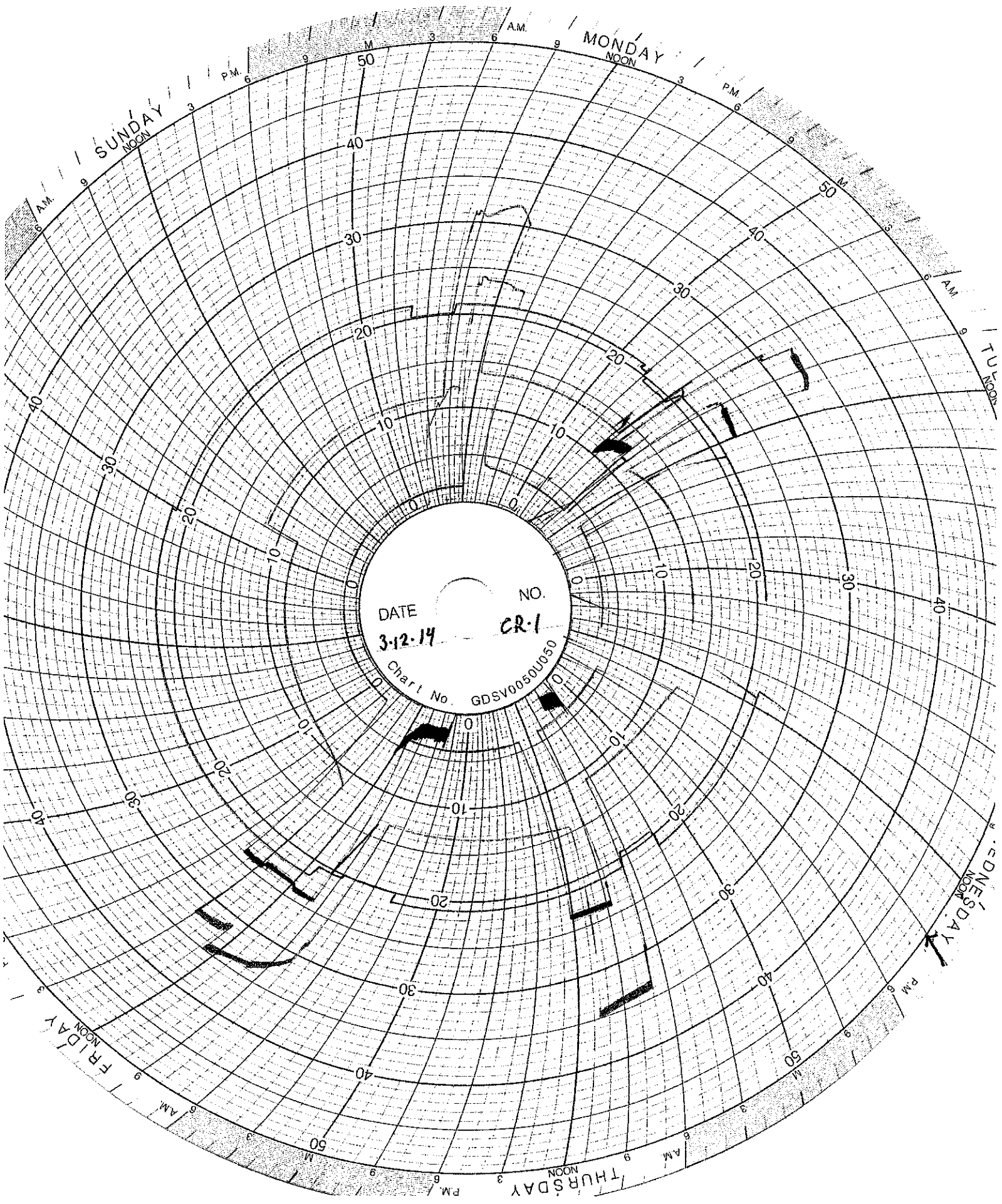
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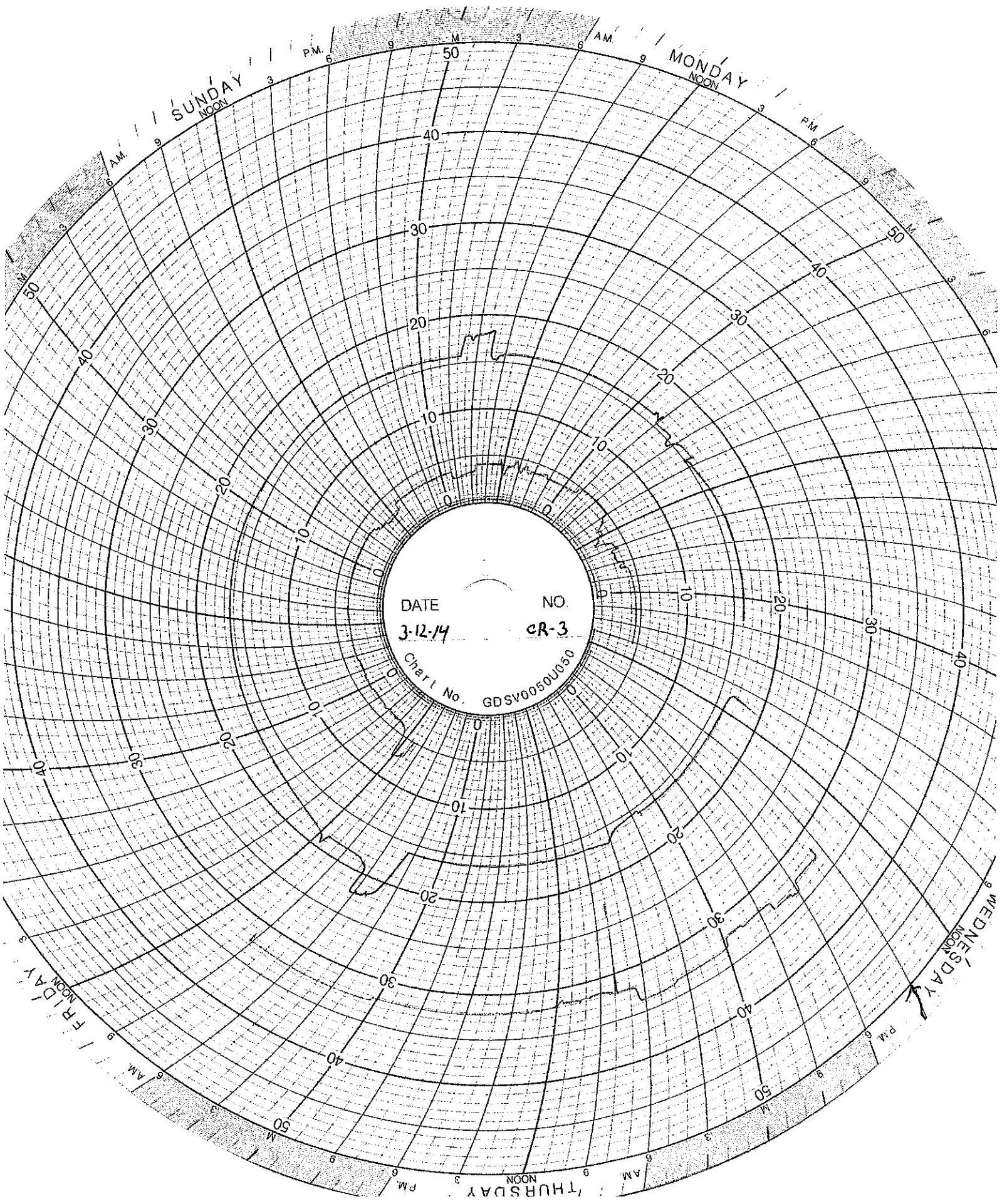
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CR-3

Chart No. GDSV0050U050



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Chart No. GDSV0050U050



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Chart No. GDSV0050U050

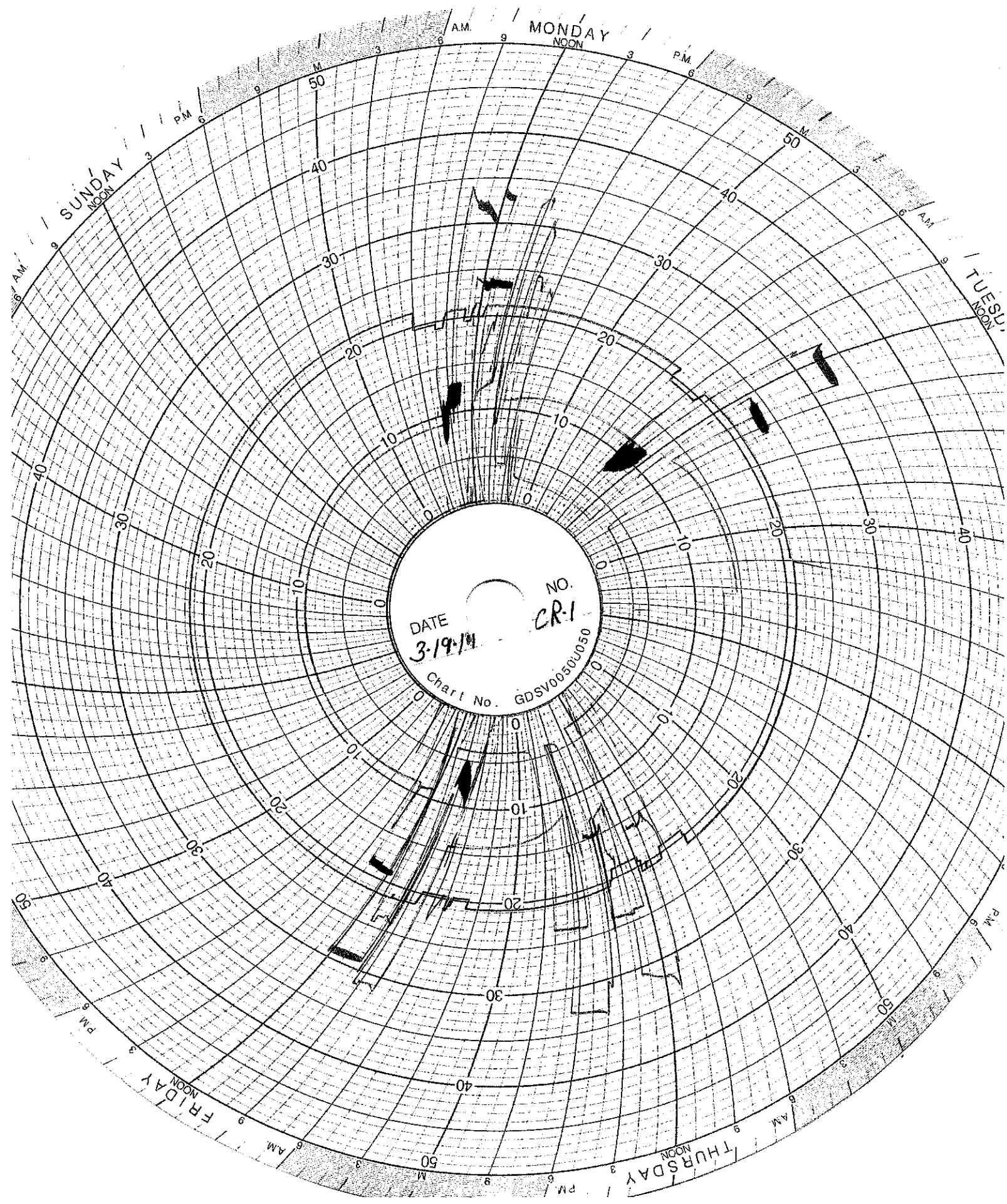
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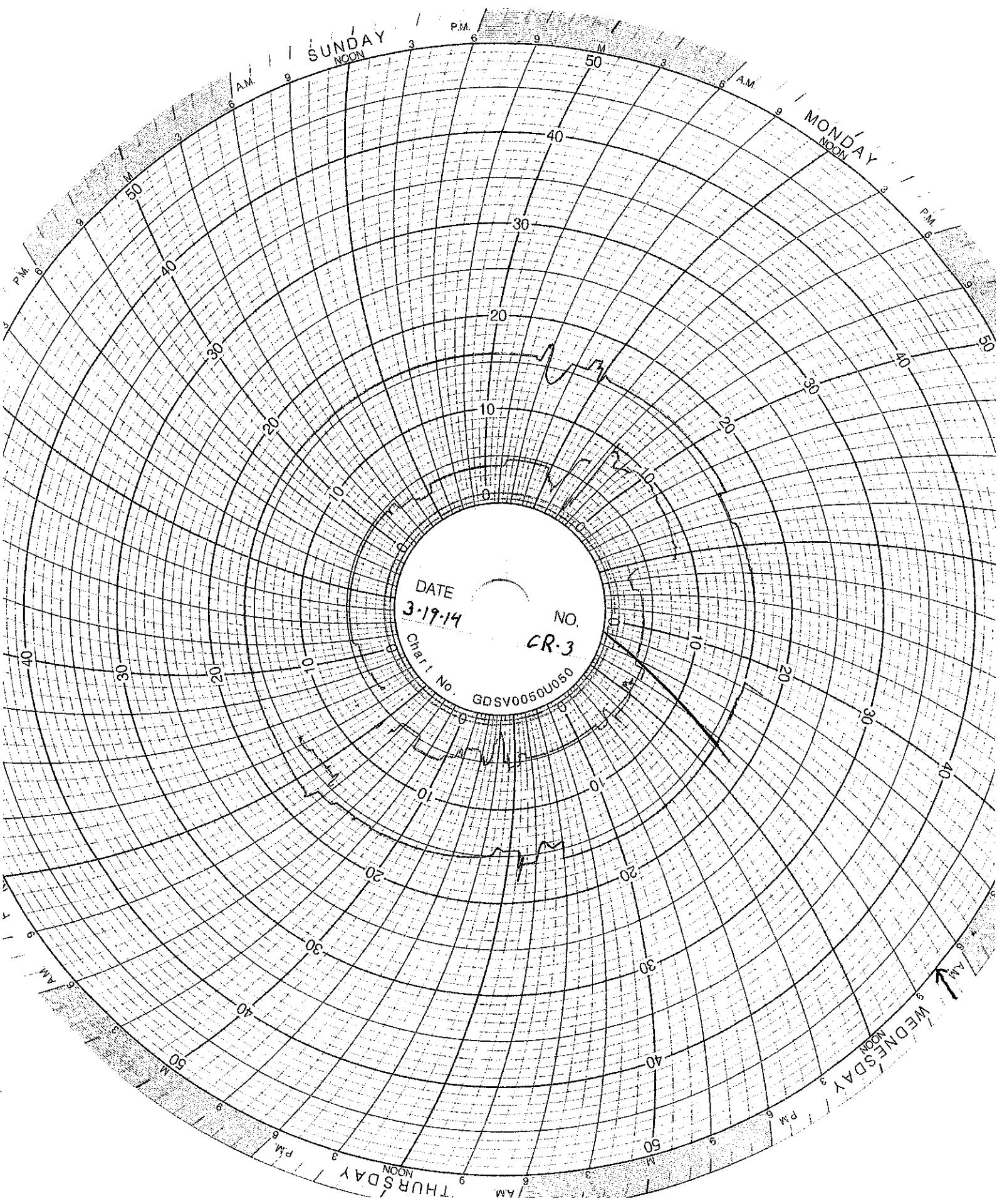
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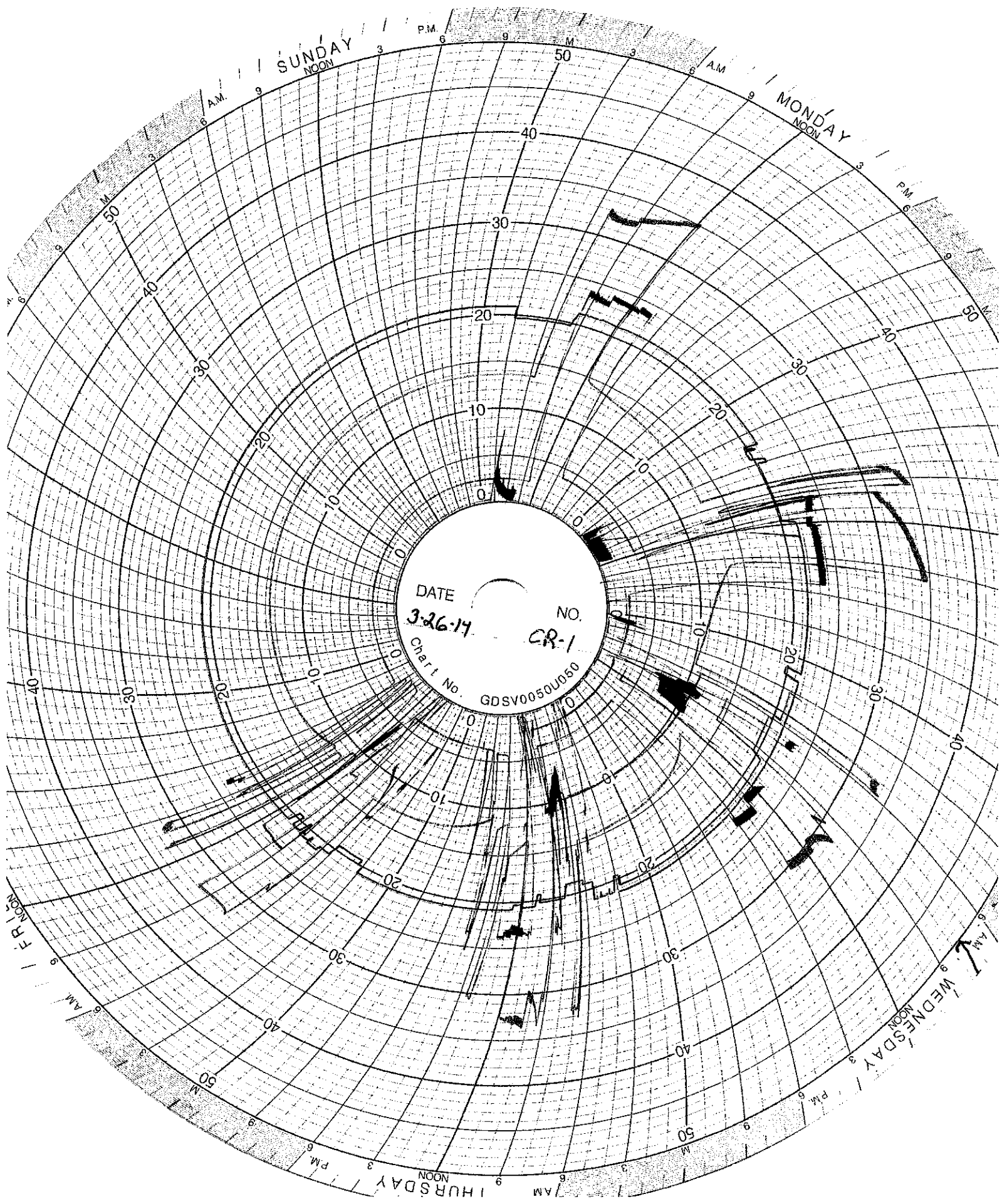
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3-19-14

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CR-3

Char. No. GDSV0050U050



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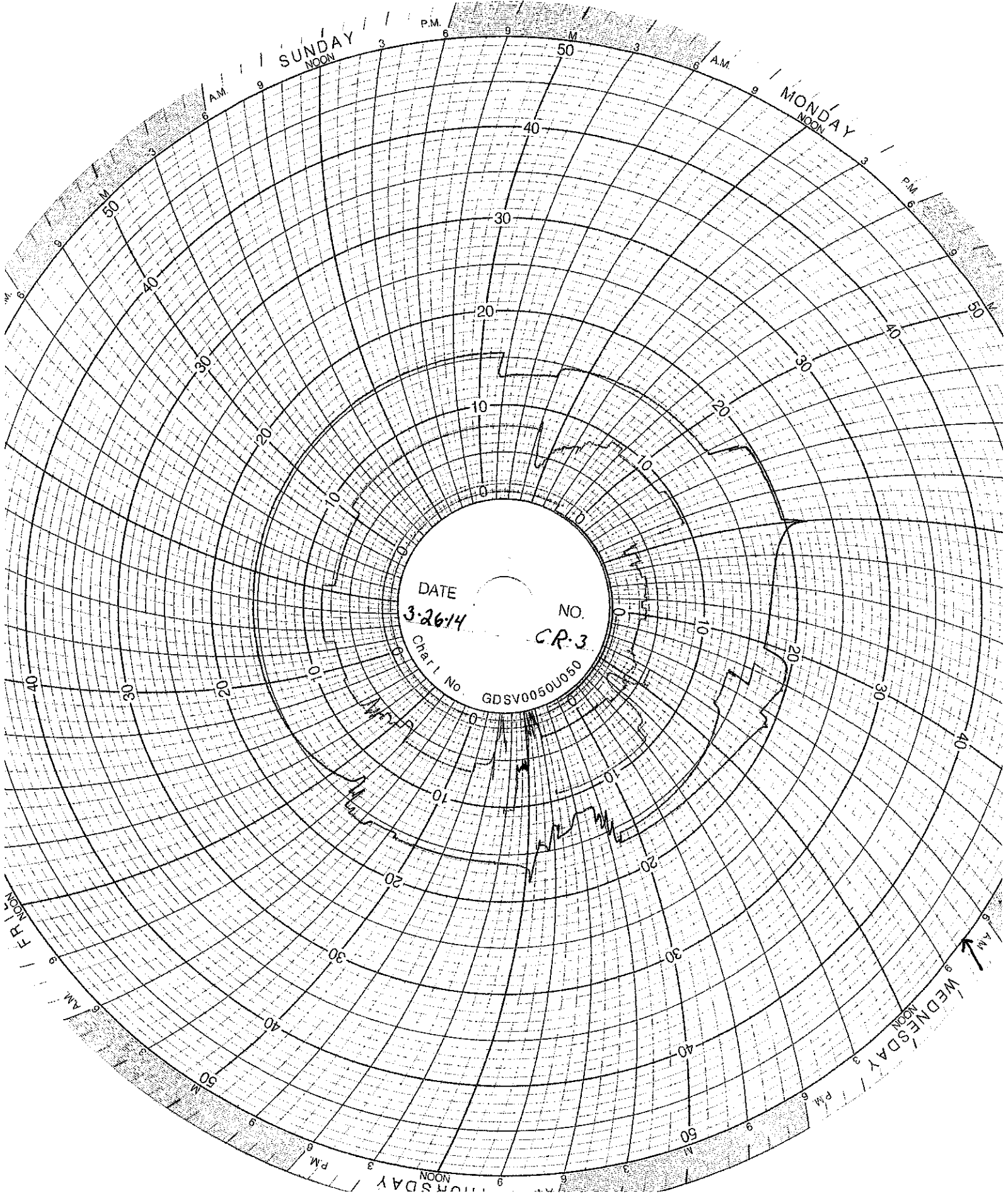
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CR-1

Chart No.  
GDSV0050U050





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WEDNESDAY  
NOON

THURSDAY  
NOON

DATE

3-26-14

NO.

CR-3

Chart No.

GDSV0050U050

## WELL 2 DATA

**SUMMARY OF OPERATING, MONITORING AND REPORTING REQUIREMENTS**  
**Injection Well II**

Month: March

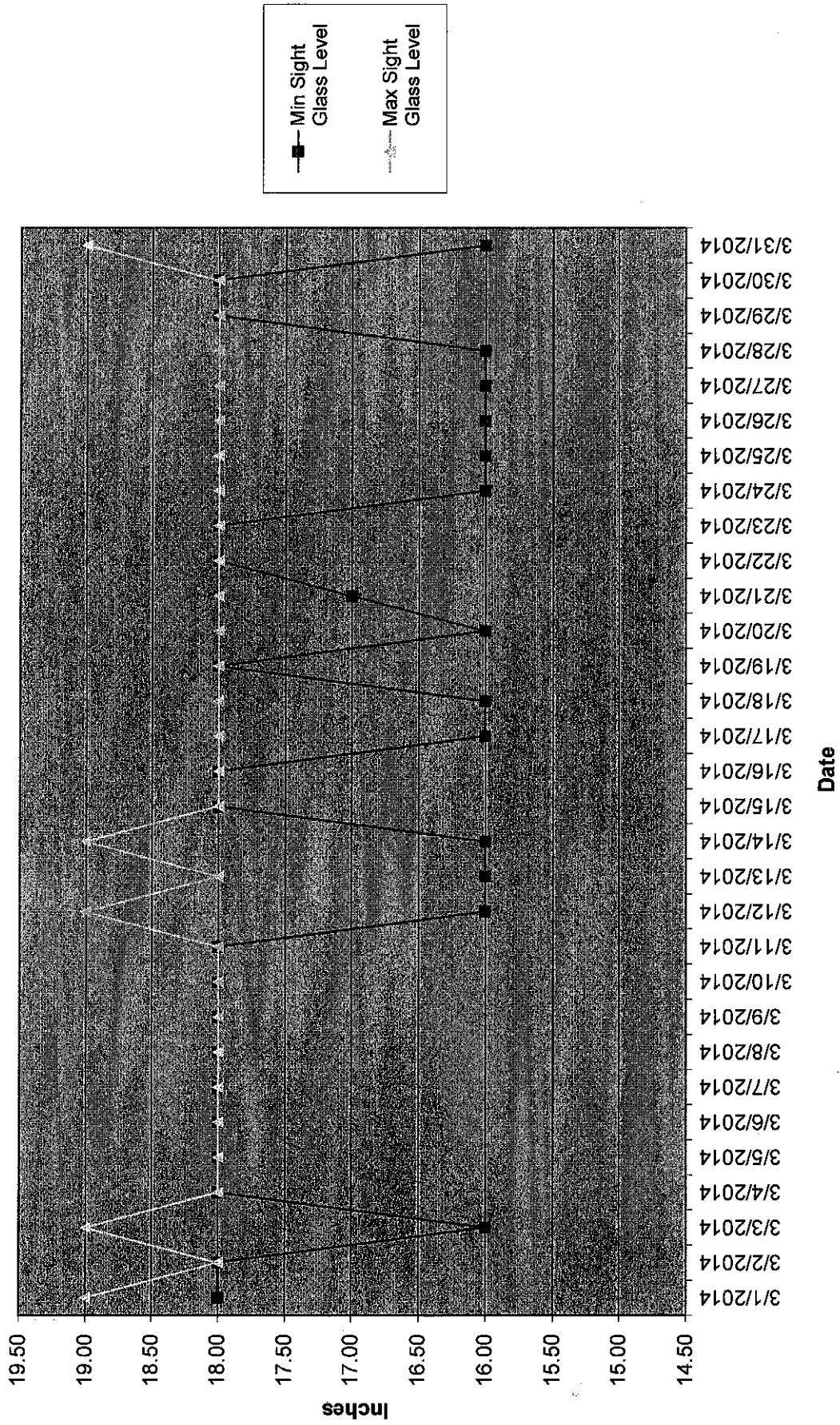
Year: 2014

<b>CHARACTERISTIC</b>	<b>LIMITATION</b>	<b>MINIMUM MONITORING FREQUENCY</b>	<b>MINIMUM REPORTING FREQUENCY</b>	<b>STATUS</b>
Injection Pressure	765 psig maximum	continuous	monthly	<b>739 psig</b>
Annulus Injection Pressure	100 psig minimum	continuous	monthly	<b>213 psig</b>
Annulus/Tubing Diff	100 psig minimum above injection pressure	continuous	monthly	<b>180 psig</b>
Injection Rate (Average both wells)	166 gpm	continuous	monthly	<b>3.6 gpm</b>
Injection Rate (Maximum instantaneous)	270 gpm	continuous	monthly	<b>63 gpm</b>
Sight Glass Level		continuous	monthly	<b>Graph attached</b>
Annulus Fluid Loss		monthly	monthly	<b>0.0 gal</b>
Cumulative Volume		daily	monthly	<b>76,075 gal</b>
Temperature		6-hour intervals	monthly	<b>Graph attached</b>
Corrosion Monitoring		monthly	monthly	<b>Report attached</b>
Repair and Maintenance		NA	monthly	<b>Log attached</b>
Toxicity Characteristic List		annually	monthly	<b>NA</b>
Fingerprint Analysis		per load	monthly	<b>Sheets attached</b>
Chemical Composition and Physical Characteristics of Injected Oilfield Brine		annually	annually	<b>NA</b>
pH of Injected Fluids		continuous	monthly	<b>Graph attached</b>

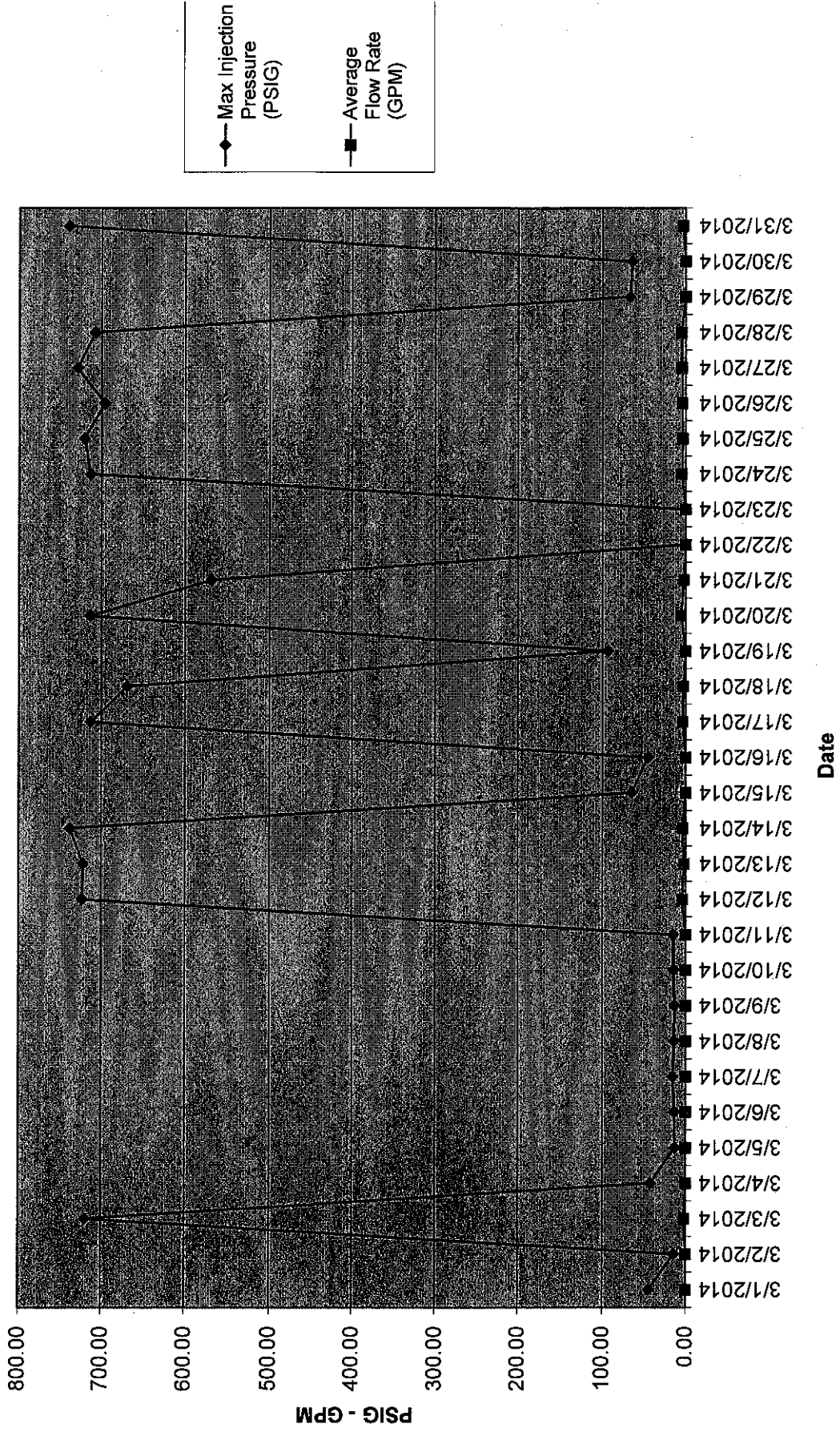
## Well 02 Monthly Data

Date	Min Injection Pressure (PSIG)	Max Injection Pressure (PSIG)	Min Sight Glass Level (in)	Max Sight Glass Level (in)	Min Annulus Pressure (PSIG)	Max Annulus Pressure (PSIG)	Min Injectate pH	Max Injectate pH	Min Flow Rate (GPM)	Max Flow Rate (GPM)	Avg Flow Rate (GPM)	Min Differential Pressure (PSIG)	Max Differential Pressure (PSIG)
3/1/2014	14.09	43.34	18.00	19.00	216.72	352.40	7.01	7.16	0.00	0.00	0.00	200.02	321.43
3/2/2014	13.14	14.17	18.00	18.00	261.83	273.98	6.76	7.22	0.00	0.00	0.00	248.60	259.86
3/3/2014	9.42	719.50	16.00	19.00	231.83	1060.70	5.22	7.34	0.00	27.43	2.28	201.90	351.60
3/4/2014	13.01	41.64	18.00	18.00	213.47	346.29	6.74	7.30	0.00	0.00	0.00	200.04	322.41
3/5/2014	12.01	13.16	18.00	18.00	320.76	327.23	6.76	7.31	0.00	0.00	0.00	308.26	314.17
3/6/2014	11.61	13.69	18.00	18.00	317.89	320.84	2.42	6.93	0.00	0.00	0.00	304.82	308.36
3/7/2014	12.77	15.41	18.00	18.00	316.63	318.46	2.28	2.76	0.00	0.00	0.00	302.86	304.96
3/8/2014	12.86	14.03	18.00	18.00	314.91	317.20	2.52	2.79	0.00	0.00	0.00	301.96	303.23
3/9/2014	12.65	13.24	18.00	18.00	313.76	314.97	2.77	2.79	0.00	0.00	0.00	300.90	302.10
3/10/2014	12.79	14.57	18.00	18.00	313.34	314.51	2.78	12.44	0.00	0.00	0.00	299.58	301.00
3/11/2014	13.35	14.95	18.00	18.00	312.58	313.92	8.74	10.78	0.00	0.00	0.00	298.78	299.83
3/12/2014	12.98	722.73	16.00	19.00	311.75	1039.02	9.11	10.06	0.00	30.23	3.71	193.43	349.30
3/13/2014	106.92	721.49	16.00	18.00	313.94	997.06	6.70	10.04	0.00	24.16	2.15	199.98	350.14
3/14/2014	41.47	737.67	16.00	19.00	263.58	1071.66	1.00	9.70	0.00	31.10	3.68	195.80	352.90
3/15/2014	39.17	64.01	18.00	18.00	240.35	367.04	0.99	1.04	0.00	0.00	0.00	200.04	315.70
3/16/2014	38.51	44.12	18.00	18.00	328.60	337.47	0.73	1.07	0.00	0.00	0.00	290.01	298.15
3/17/2014	36.20	712.43	16.00	18.00	282.61	1046.60	0.82	1.40	0.00	34.58	3.46	184.48	351.19
3/18/2014	64.99	669.22	16.00	18.00	363.31	966.34	0.49	1.42	0.00	28.41	2.67	200.32	348.08
3/19/2014	91.48	93.07	18.00	18.00	387.44	397.36	1.14	1.73	0.00	0.00	0.00	295.90	304.34
3/20/2014	87.65	712.78	16.00	18.00	331.09	987.74	0.46	1.76	0.00	40.84	5.66	190.90	350.27
3/21/2014	0.01	568.20	17.00	18.00	328.45	875.27	1.03	4.36	0.00	40.54	2.05	195.20	348.19
3/22/2014	0.03	0.03	18.00	18.00	338.03	343.51	1.26	1.38	0.00	0.00	0.00	338.01	343.49
3/23/2014	0.03	0.03	18.00	18.00	334.92	338.10	0.87	1.37	0.00	0.00	0.00	334.89	338.07
3/24/2014	0.00	712.71	16.00	18.00	281.09	993.97	0.37	3.08	0.00	62.98	4.41	179.84	351.50
3/25/2014	48.90	719.96	16.00	18.00	275.69	1028.65	0.74	2.77	0.00	48.74	3.53	189.33	350.01
3/26/2014	90.66	695.97	16.00	18.00	294.47	968.42	0.48	2.72	0.00	43.61	4.00	198.58	349.94
3/27/2014	34.56	728.61	16.00	18.00	307.97	1030.40	0.00	3.03	0.00	51.35	4.54	191.01	349.97
3/28/2014	27.84	707.35	16.00	18.00	289.07	1010.48	1.28	2.16	0.00	50.74	4.78	196.46	358.54
3/29/2014	63.44	66.29	18.00	18.00	324.66	327.77	1.93	2.38	0.00	0.00	0.00	258.58	263.95
3/30/2014	63.05	63.67	18.00	18.00	326.76	328.02	2.29	2.32	0.00	0.00	0.00	263.51	264.58
3/31/2014	62.65	739.24	16.00	19.00	317.21	1069.48	1.07	2.83	0.00	36.01	2.99	187.69	350.07

Well 2 Min/Max Sight Glass Level Chart



# Well 2 Max Injection Pressure and Avg. Flow Rate



## Circle Chart Index

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

### Chart Recorder #1

Channel #1

**Blue Pen** - Well 1 Injection Pressure

Channel #2

**Red Pen** – Well 1 Annulus Pressure

Channel #3

**Green Pen** – Well 1 Flow Rate

Channel #4

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

### Chart Recorder #2

Channel #1

**Blue Pen** – Well 2 Injection Pressure

Channel #2

**Red Pen** – Well 2 Annulus Pressure

Channel #3

**Green Pen** – Well 2 Flow Rate

Channel #4

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

### Chart Recorder #3

Channel #1

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

Channel #2

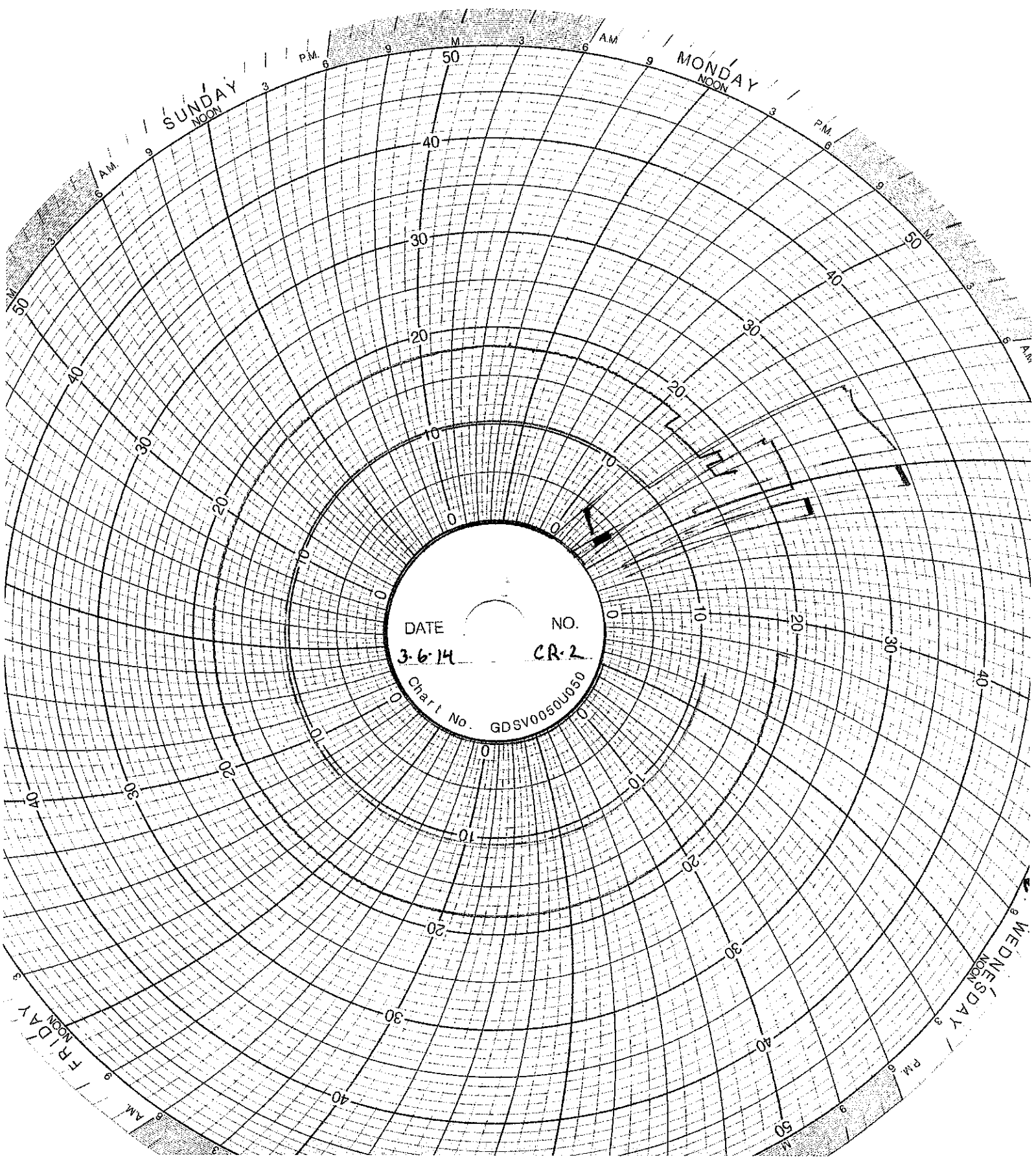
**Red Pen** – Well 1 Monthly Volume

Channel #3

**Green Pen** – Well 2 Monthly Volume

Channel #4

**Black Pen** - Temperature



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NOON

MONDAY  
NOON

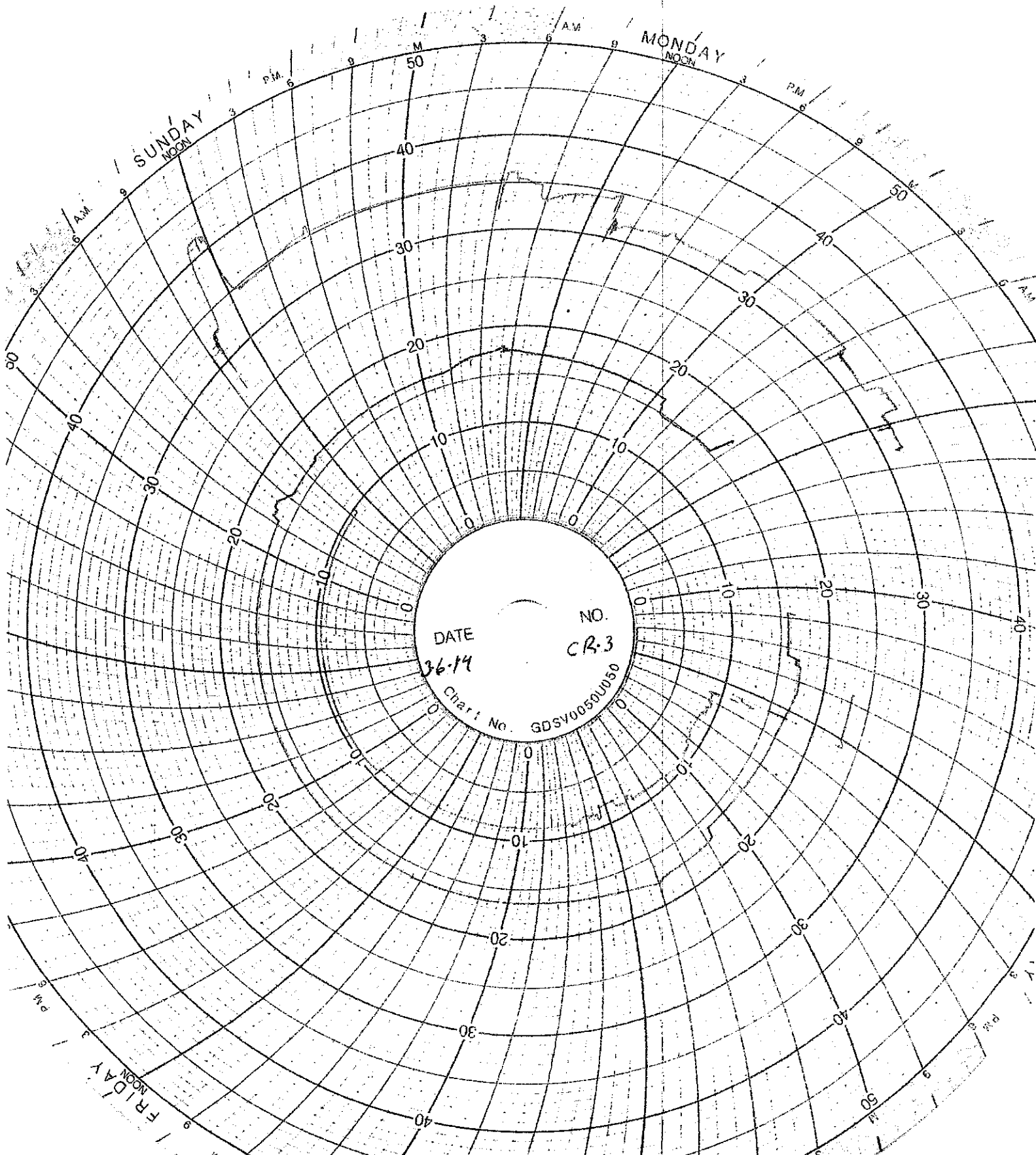
WEDNESDAY  
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FRIDAY  
NOON

DATE NO.  
3-6-14 CR-2

Chart No. GDSV0060U050





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MONDAY  
NOON

FRIDAY  
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DATE

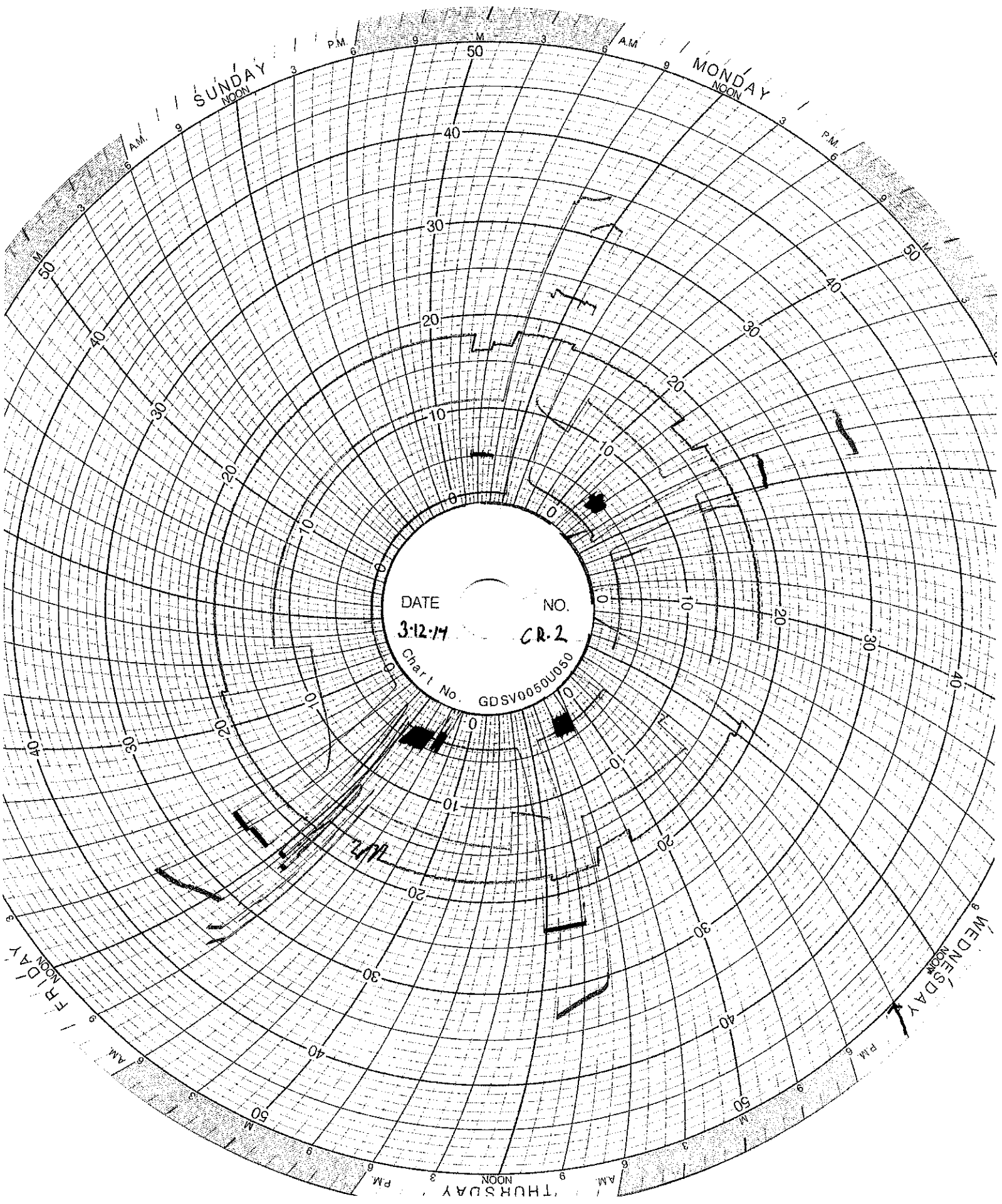
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CR-3

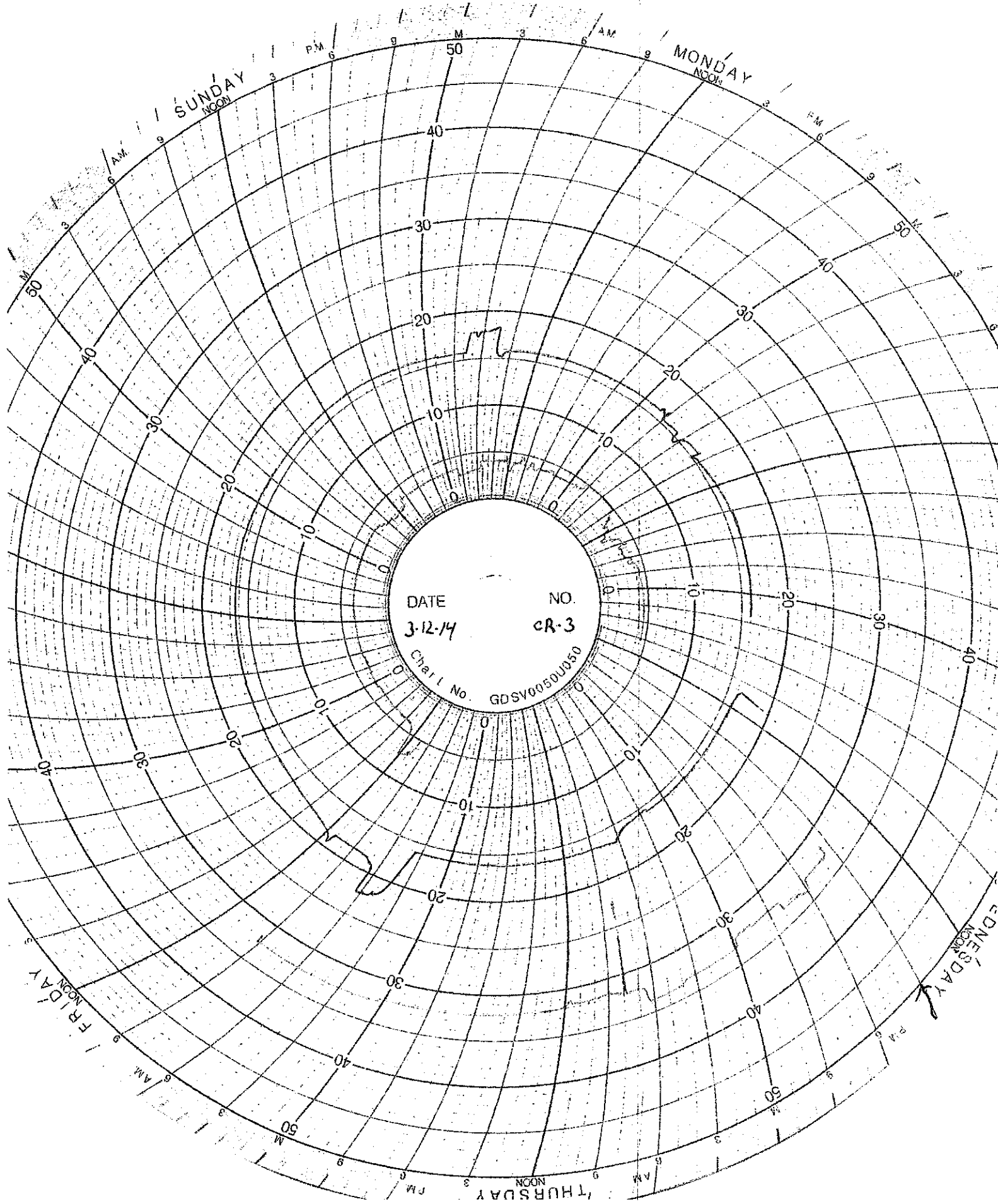
Chart No.

GDSV0050U050



DATE 3-12-74 NO. CR-2

Char'l No GDSV0050U050



DATE

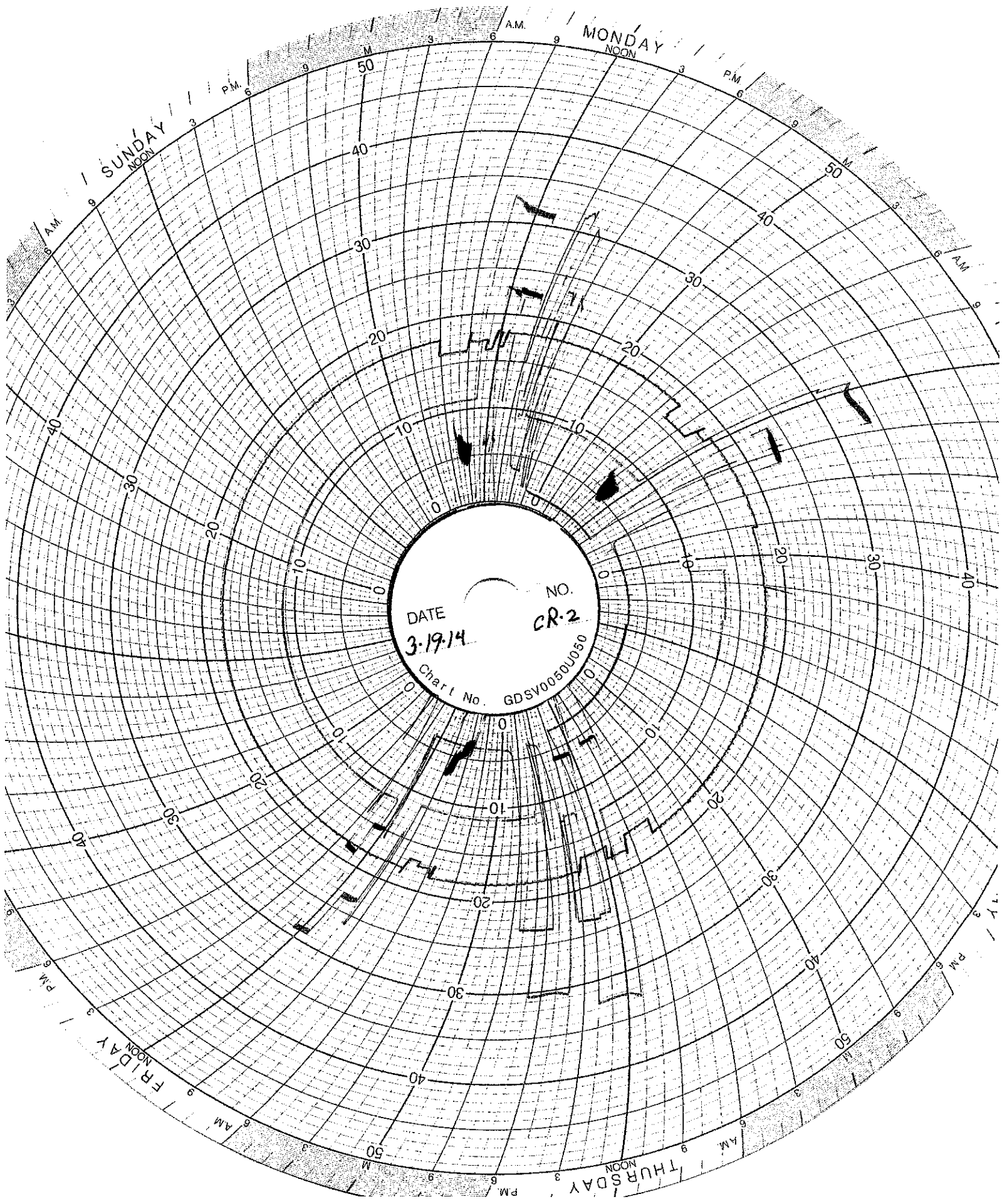
3-12-14

NO.

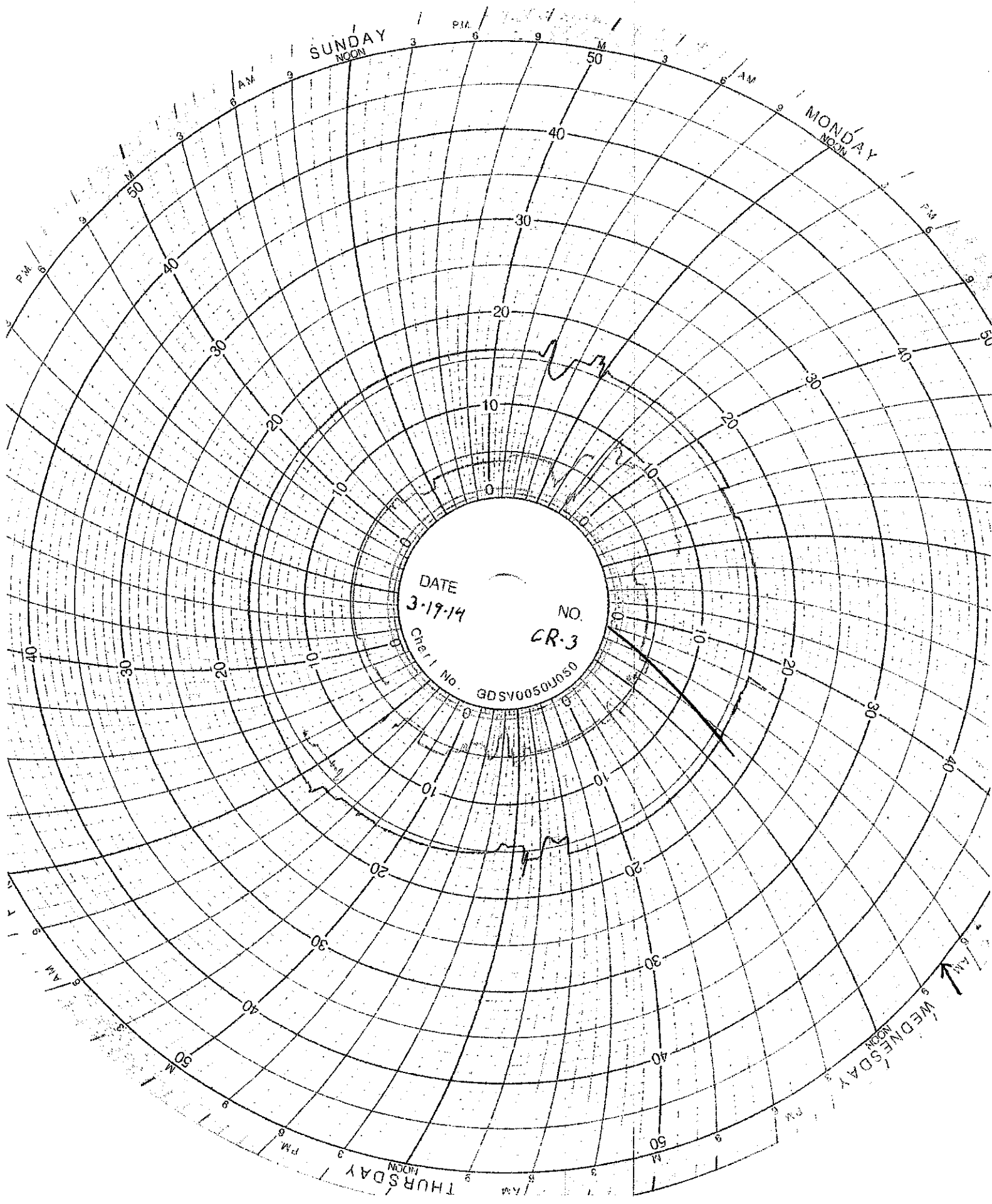
CR-3

Chart No.

GDSV00150U050



DATE 3-19-14  
NO. CR-2  
Chart No. GDSV0050U050



SUNDAY  
NOON

MONDAY  
NOON

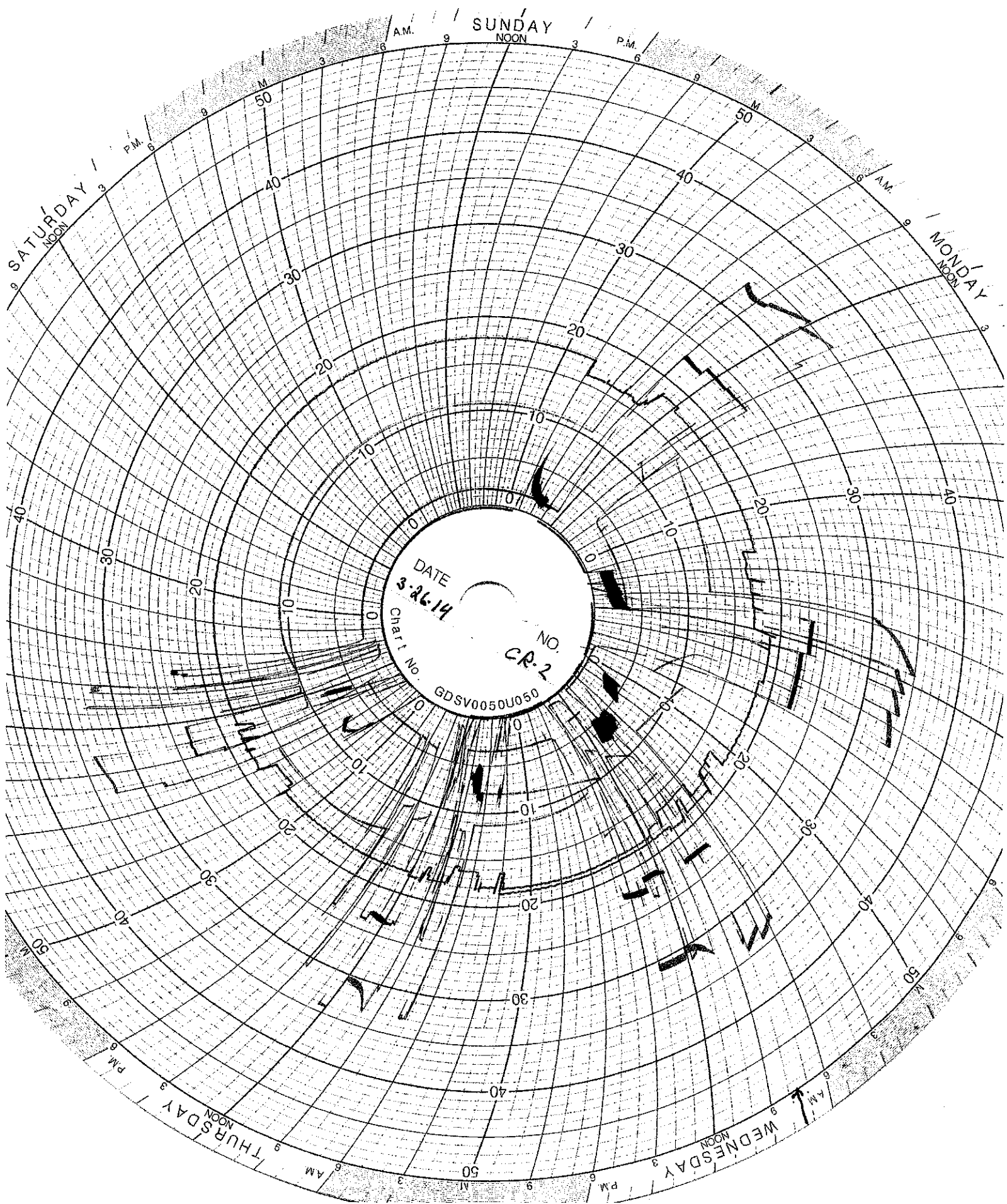
WEDNESDAY  
NOON

THURSDAY  
NOON

DATE  
3-19-14

NO.  
CR-3

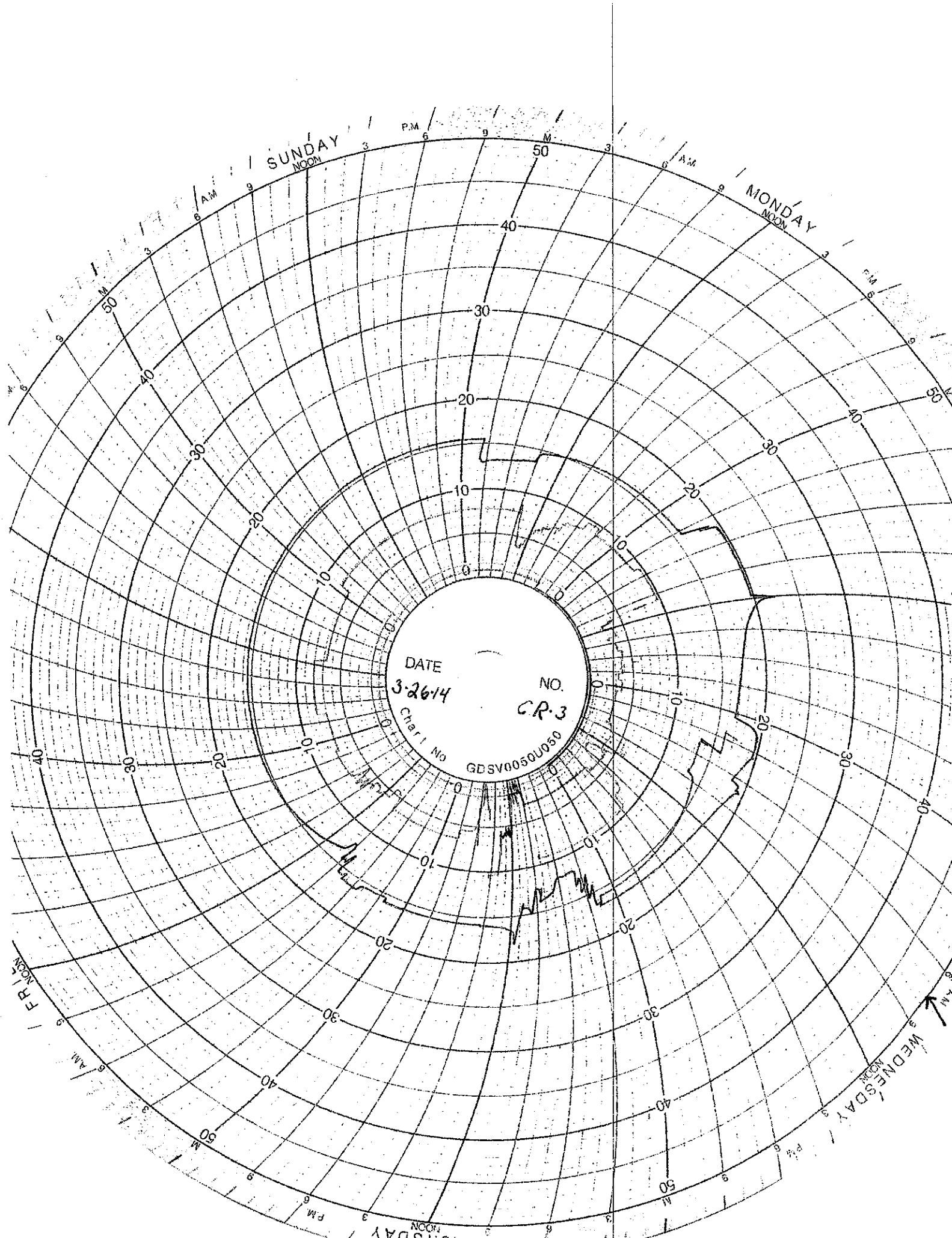
Chart No. GDSV0050J050



DATE  
3-26-14

Chart No.  
GDSV0050U050

NO.  
CR-2



SUNDAY  
NOON

MONDAY  
NOON

DATE

3-26-14

NO.

CR-3

Charl No

GDSV0050U050

FRIDAY

WEDNESDAY

THURSDAY

## **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.

9/18/13

Transcribed from coupons weighed  
on 8/6/13

#1 Fiberglass Coupon Prior to  
Waste Exposure  
wt. = 7.309 grams

#2 Hastelloy Coupon Prior to  
Waste Exposure / ID: C267(1)  
wt. = 13.330 grams

#3 Stainless Steel Coupon Prior to  
Waste Exposure / ID: 316L/C1562  
wt. = 10.848 grams

# GHESEQUIERE PLASTIC TESTING, INC.

20450 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 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

	<u>Hardness</u>
Specimen 1	90

Specimen is being returned with this report for further evaluation.

GHESEQUIERE PLASTIC TESTING, INC.

  
M. W. Ghesquiere  
President

MWG/kni

# Ghesquiere Plastic Testing, Inc.

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

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

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

Attention: Mr. Don Anderson

## WORK REQUESTED:

Perform Barcol Hardness test on sample submitted.

## DESCRIPTION OF SAMPLE:

Sample submitted was identified as a fiberglass test coupon.

(P. O. #Credit Card).

## WORK PERFORMED:

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

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

## RESULTS:

The following determination was made based upon the above test:

### BARCOL HARDNESS

#### Hardness

Specimen 1402-78036 90

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

Ghesquiere Plastic Testing, Inc.

  
M. W. Ghesquiere  
President

MWG/dm

316L  
C1562

Stainless Steel Coupon

ID: 316L / C1562

Date: 08/06/2013

Wt.: 10.848 grams

Prior to Waste Exposure

C276

1

Hastelloy Coupon

ID: C267 (1)

Date: 08/06/2013

Wt.: 13.330 Grams

Prior to Waste Exposure



Fiberglass Coupon

Date: 08/06/2013

Wt.: 7.309 Grams

Prior to Waste Exposure

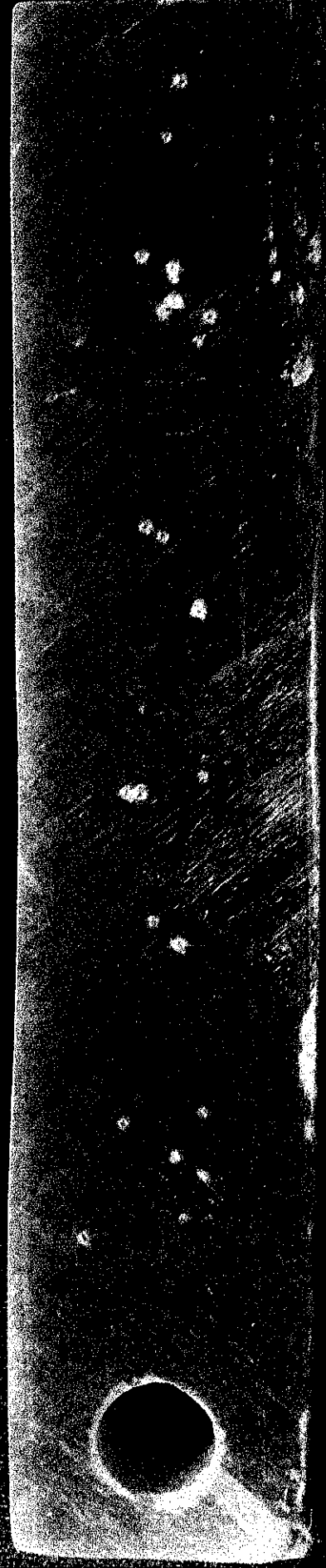
316L  
C1562

Stainless Steel Coupon

Date: 2/21/14

ID: 316L/# C1562

Weight: 10.846 grams



Fiberglass Coupon

Date: 2/21/14

Weight: 7.306 grams

CORROSION MONITORING PLAN  
COUPON SUMMARY

Date	Hastelloy	Stainless Steel	Fiberglass	
	(C267)	(316L)	(Redbox)	
12/19/2013	13.330 g	10.848 g	7.309 g	Initial Mass @ start up
2/21/2014	13.329 g	10.846 g	7.306 g	
3/10/2014	13.327 g	10.845 g	7.300 g	
4/18/2014	13.324 g	10.841 g	7.272 g	

**INJECTION  
FINGERPRINTS**

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

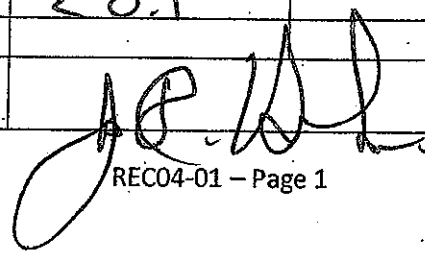
RECEIVING & APPROVAL FORM

RECEIVING INFORMATION

Date	03/28/14
Receiving ID#	I03281401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	DM

**COPY**

LAB INFORMATION:

All Waste Shipments:		Oilfield Brines Only:	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	4.7	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.00	TDS	< 17
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	51°F		
Conductivity	0.5 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/27/14
Receiving ID#	103271403
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	DAH

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	<u>Yes</u> No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 140	Sodium Chloride	
pH (S.U.)	1.9	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	2.0
Specific Gravity	1.05	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	59°F		
Conductivity	39.6 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

15209

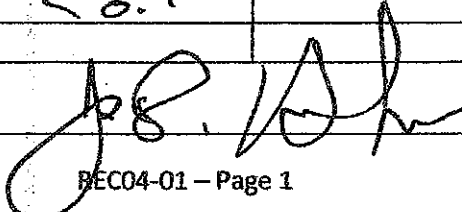
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ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/27/14
Receiving ID#	I 03271402
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:			
Compatible? (RT# )	(Yes) No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.02	TDS	3.0%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	53°F		
Conductivity	62.6 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			



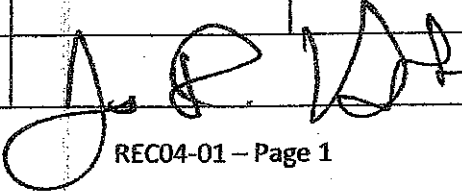
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/27/14
Receiving ID#	I 03271401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J. H.
Sampled by	DAH

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 140	Sodium Chloride	
pH (S.U.)	0.8	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	5.59
Specific Gravity	1.05	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	58°F		
Conductivity	110.5 μS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

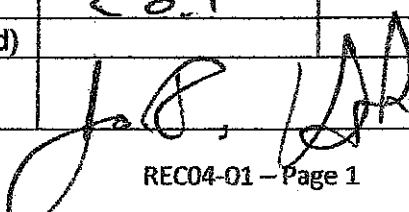
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/26/14
Receiving ID#	I 03261401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	SAH

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.5	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.01	TDS	1.5 %
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	54°F		
Conductivity	30.3 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

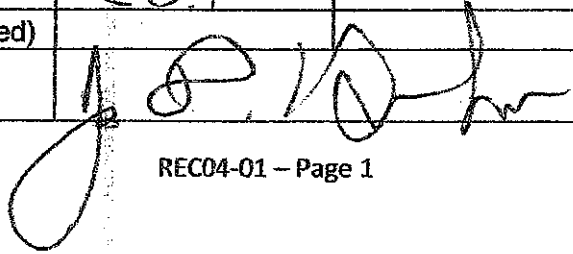
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ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/25/14
Receiving ID#	103251401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	R.A.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 140	Sodium Chloride	
pH (S.U.)	1.3	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	2.09
Specific Gravity	1.01	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	57°F		
Conductivity	40.4 μS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

FINGERPRINT FORM

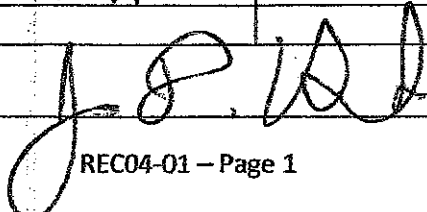
ENVIRONMENTAL GEO-TECHNOLOGIES, LLC

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/24/14
Receiving ID#	I 6324140i
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

COPY

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	140	Sodium Chloride	
pH (S.U.)	0.1	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	12.67
Specific Gravity	1.09	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	63°F		
Conductivity	251.3 mS		
% Solids	<0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	<0.1		
Radiation Screen (as needed)			
Lab Signature			

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/21/14
Receiving ID#	I 03211462
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 140	Sodium Chloride	
pH (S.U.)	> 1.0	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	6.29
Specific Gravity	1.02	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	68°F		
Conductivity	124.5 μS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

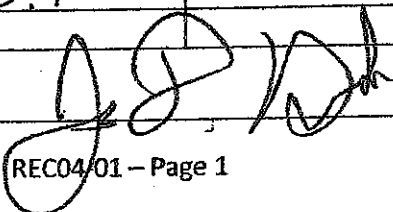
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	3/21/14
Receiving ID#	I 03211401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

COPY

LAB INFORMATION: All Waste Shipments:		Oilfield Brines Only:	
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	4.1	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.07	TDS	3.17
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	61°F		
Conductivity	628 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

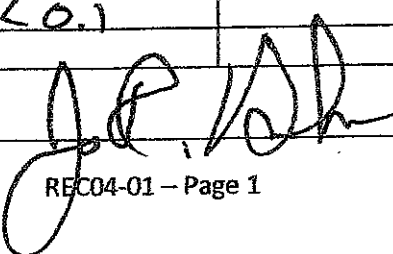
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ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/20/14
Receiving ID#	103201401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	S.H.
Sampled by	D.H.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 130	Sodium Chloride	
pH (S.U.)	1.3	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	1.29
Specific Gravity	1.00	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	64°F		
Conductivity	23.6 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

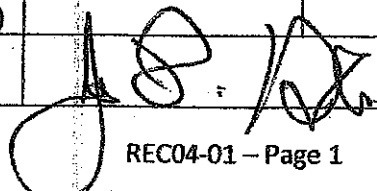
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/18/14
Receiving ID#	103181402
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time In	
Time out	
Received by	J.M.H.
Sampled by	J.M.H.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:			
Compatible? (RT# )	<input checked="" type="radio"/> Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.4	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.01	TDS	2.09
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	55°F		
Conductivity	39.3 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

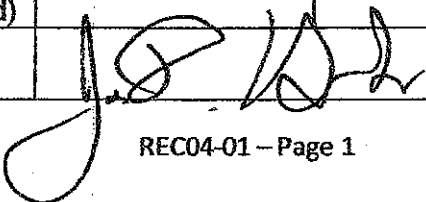


FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/18/14
Receiving ID#	103181401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	D.H.

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	140	Magnesium	
pH (S.U.)	1.3	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.01	TDS	3.6%
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	59°F		
Conductivity	70.8 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

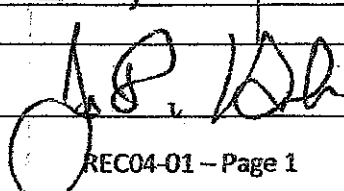
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/17/14
Receiving ID#	I 0317140
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	N.H.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	(Yes) No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	140	Sodium Chloride	
pH (S.U.)	0.8	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	5.27
Specific Gravity	1.04	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	65.4°F		
Conductivity	104.5 mS		
% Solids	LO.		
Turbidity	Yes No		
Color (visual)			
TSS (%)	LO.		
Radiation Screen (as needed)			
Lab Signature			

FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/14/14
Receiving ID#	103141401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	G.P.
Sampled by	DAK

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:			
Compatible? (RT# )	Yes No	Barium	
PCBs (ppm)(Oily Waste Only)?		Calcium	
TOC (ppm)(CC Waste Only)?		Total Iron	
Flash Point (°F)	> 140	Magnesium	
pH (S.U.)	1.9	Sodium Chloride	
Cyanides? (mg/L)		Bicarbonate	
Sulfides? (ppm)		Carbonate	
Specific Gravity	1.06	TDS	3.17
Physical Description		Resistivity	
Stream Consistency	Yes No	Sulfate	
Oil in Sample	Yes No		
Temperature	77 °F		
Conductivity	62.2 mS		
% Solids	20.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	20.1		
Radiation Screen (as needed)			
Lab Signature	J.S. DAK		

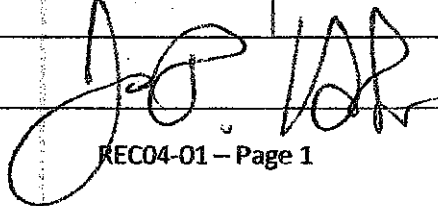
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/12/14
Receiving ID#	103121401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	A
Generator	EGT
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	W.A.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 140	Sodium Chloride	
pH (S.U.)	10.1	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	1.29
Specific Gravity	1.00	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	3.8 mS		
% Solids	20.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	20.1		
Radiation Screen (as needed)			
Lab Signature			

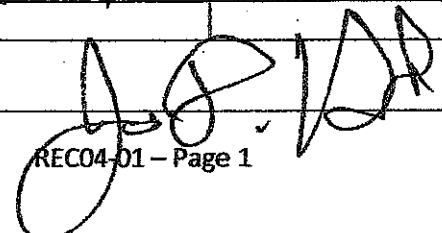
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ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/10/14
Receiving ID#	03101401
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J.H.
Sampled by	W.H.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 140	Sodium Chloride	
pH (S.U.)	9.9	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	139
Specific Gravity	1.02	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	25.9 mS		
% Solids			
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

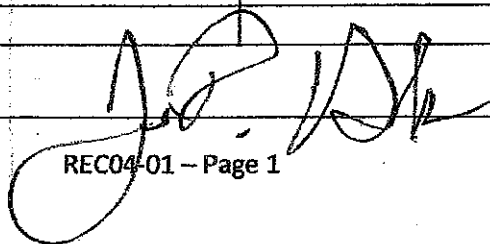
FINGERPRINT FORM

ENVIRONMENTAL GEO-TECHNOLOGIES, LLC.

RECEIVING & APPROVAL FORM

RECEIVING INFORMATION	
Date	03/06/14
Receiving ID#	I 03D6140
Manifest# Line:	
Land Ban Cert included	Yes No
EGT Approval #	
Generator	
Client	
Transporter	
Time in	
Time out	
Received by	J. H.
Sampled by	R. H.

COPY

LAB INFORMATION:		Oilfield Brines Only:	
All Waste Shipments:		Barium	
Compatible? (RT# )	Yes No	Calcium	
PCBs (ppm)(Oily Waste Only)?		Total Iron	
TOC (ppm)(CC Waste Only)?		Magnesium	
Flash Point (°F)	> 140	Sodium Chloride	
pH (S.U.)	2.7	Bicarbonate	
Cyanides? (mg/L)		Carbonate	
Sulfides? (ppm)		TDS	1.6%
Specific Gravity	1.02	Resistivity	
Physical Description		Sulfate	
Stream Consistency	Yes No		
Oil in Sample	Yes No		
Temperature	65°F		
Conductivity	30.9 mS		
% Solids	< 0.1		
Turbidity	Yes No		
Color (visual)			
TSS (%)	< 0.1		
Radiation Screen (as needed)			
Lab Signature			

**WASTE STREAMS  
CHARACTERIZATIONS**