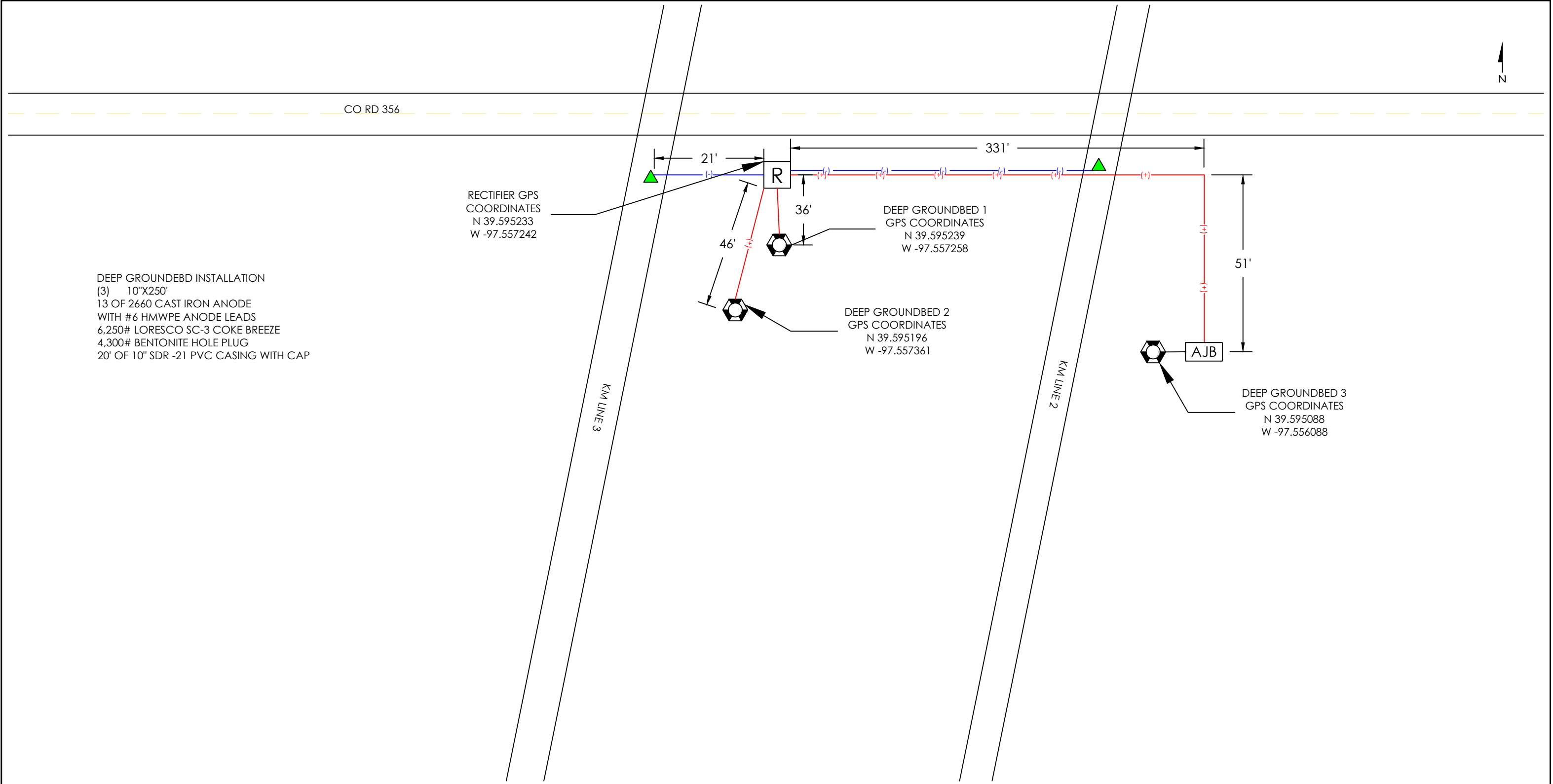


| | |
|-----------|---|
| Form | ACO1 - Well Completion |
| Operator | Natural Gas Pipeline Company of America LLC |
| Well Name | AMA 389 3 |
| Doc ID | 1707257 |

Casing

| Purpose Of String | Size Hole Drilled | Size Casing Set | Weight | Setting Depth | Type Of Cement | Number of Sacks Used | Type and Percent Additives |
|-------------------|-------------------|-----------------|--------|---------------|----------------|----------------------|----------------------------|
| Surface | 14 | 10.750 | 9.1 | 20 | Bentonite | 15 | N/A |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



DEEP GROUNDEBD INSTALLATION
(3) 10"X250"
13 OF 2660 CAST IRON ANODE
WITH #6 HMWPE ANODE LEADS
6,250# LORESCO SC-3 COKE BREEZE
4,300# BENTONITE HOLE PLUG
20' OF 10" SDR -21 PVC CASING WITH CAP

RECTIFIER GPS
COORDINATES
N 39.595233
W -97.557242

DEEP GROUNDBED 1
GPS COORDINATES
N 39.595239
W -97.557258

DEEP GROUNDBED 2
GPS COORDINATES
N 39.595196
W -97.557361

DEEP GROUNDBED 3
GPS COORDINATES
N 39.595088
W -97.556088

| REVISIONS | | | | | |
|-----------|-------------|-----------|------|-----------|------|
| No. | Description | Drawn By: | Date | Chk'd By: | Date |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| DEEP GROUNDBED LEGEND | | | |
|-----------------------|-----------------|--|-----------------|
| | DEEP GROUNDBED | | POSITIVE CABLE |
| | ANODE JBOX | | NEGATIVE CABLE |
| | NEG. CONNECTION | | PIPELINE ASSETS |
| | RECTIFIER | | |

| | |
|-------------|-----------|
| Drawn by: | Date: |
| CHALL | 2/14/2023 |
| Checked by: | Date: |
| AAS | 2/16/2023 |
| | |



MERIDIAN
PIPELINE SERVICES
CORROSION • INTEGRITY • CONSTRUCTION

| | | | |
|--|-------------|-----------|-------------|
| CATHODIC PROTECTION LAYOUT AMA 389 DEEP GROUNDBED INSTALLATION | | | KS |
| CONCORDIA | Project No: | 2022-0479 | Revision: 0 |
| | Sheet No: | 0 | |

CITATION

DEEP GROUND BED DRILL LOG & RECTIFIER FORM

DRILLING & BORING

| CLIENT INFORMATION | | | | | | | | | | | |
|--|---------------|-------------|----------------|--------------------|------|--|------------------|---|------------|---------------|-----------|
| Client | Kinder Morgan | | | | | | Job Number | 2022-0479 | | | |
| Facility | AMA 389 DW 3 | | | | | | Customer Contact | Kevin Brown | | | |
| City | Concordia | County | Cloud | State | KS | | Phone No. | 308-325-3563 | | | |
| DEEP GROUND BED & DRILLING LOG INFORMATION | | | | | | | | | | | |
| | | | | | | <input checked="" type="checkbox"/> New Installation | | <input type="checkbox"/> Existing Rectifier | | | |
| Hole Dia. | 10" | Total Depth | 250' | Casing Feet | 20' | Dia. | 10" | Type | SDR-21 PVC | Groundbed GPS | |
| No. Anodes | 13 | Size & Type | 2660 Cast Iron | Anode Lead | 300' | Size | #6 | Type | HWMPE | N | 39.595088 |
| Lbs. Coke | 6250 | Coke Type | SC3 | Top of Coke Column | 64' | Vent | 180' | W | -97.556088 | | |
| Lbs. Plug | 4300 | Plug Type | Bentonite | Top of Plug | 3' | Logging Volts | | | 13.4 | | |

| Depth Ft. | DRILLER'S LOG | Anode NO. | Electric Log | | | | Depth Ft. | DRILLER'S LOG | Anode NO. | Electric Log | | | |
|-----------|---------------|-----------|--------------|-------------|------------|---------|-----------|---------------|-----------|--------------|-------------|------------|---------|
| | | | Volts | Amps Before | Amps After | Remarks | | | | Volts | Amps Before | Amps After | Remarks |
| 0 | | | | | | | 205 | | 5 | | | | |
| 5 | | | | | | | 210 | Rock | | | 3.0 | | |
| 10 | Casing | | | | | | 215 | | 4 | | | 10.4 | |
| 15 | | | | | | | 220 | Grey clay | | | 3.3 | | |
| 20 | Casing | | | | | | 225 | | 3 | | | 10.5 | |
| 25 | | | | | | | 230 | Grey clay | | | 3.1 | | |
| 30 | Pea gravel | | | 1.0 | | | 235 | | 2 | | | 9.9 | |
| 35 | | | | | | | 240 | Grey clay | | | 3.4 | | |
| 40 | Pea gravel | | | 1.1 | | | 245 | | 1 | | | 3.6 | |
| 45 | | | | | | | 250 | Grey clay | | | | | |
| 50 | Pea Gravel | | | 1.1 | | | 255 | | | | | | |
| 55 | | | | | | | 260 | | | | | | |
| 60 | Pea Gravel | | | 1.3 | | | 265 | | | | | | |
| 65 | | | | | | | 270 | | | | | | |
| 70 | Pea Gravel | | | 1.2 | | | 275 | | | | | | |
| 75 | | | | | | | 280 | | | | | | |
| 80 | Pea gravel | | | 1.5 | | | 285 | | | | | | |
| 85 | | | | | | | 290 | | | | | | |
| 90 | Sand stone | | | 1.9 | | | 295 | | | | | | |
| 95 | | | | | | | 300 | | | | | | |
| 100 | Sand Stone | | | 2.8 | | | 305 | | | | | | |
| 105 | | | | | | | 310 | | | | | | |
| 110 | Sand stone | | | 1.1 | | | 315 | | | | | | |
| 115 | | | | | | | 320 | | | | | | |
| 120 | Sand stone | | | 2.6 | | | 325 | | | | | | |
| 125 | | 13 | | | 8.5 | | 330 | | | | | | |
| 130 | Sand stone | | | 2.6 | | | 335 | | | | | | |
| 135 | | 12 | | | 8.3 | | 340 | | | | | | |
| 140 | Grey clay | | | 2.4 | | | 345 | | | | | | |
| 145 | | 11 | | | 12.3 | | 350 | | | | | | |
| 150 | Grey clay | | | 2.5 | | | 355 | | | | | | |
| 155 | | 10 | | | 11.5 | | 360 | | | | | | |
| 160 | Sand stone | | | 2.6 | | | 365 | | | | | | |
| 165 | | 9 | | | 12.3 | | 370 | | | | | | |
| 170 | Sand stone | | | 2.6 | | | 375 | | | | | | |
| 175 | | 8 | | | 11.5 | | 380 | | | | | | |
| 180 | Grey clay | | | 2.9 | | | 385 | | | | | | |
| 185 | | 7 | | | 13.1 | | 390 | | | | | | |
| 190 | Grey clay | | | 3.0 | | | 395 | | | | | | |
| 195 | | 6 | | | 11.4 | | 400 | | | | | | |
| 200 | Grey clay | | | 3.0 | | | | Total | | | | | |

| ANODE JUNCTION BOX INFORMATION | | | | | | | | | | | | |
|--------------------------------|-----|------|-----|------|-----|------|-----|-------|-----|------|----------|-----|
| ANODE JUNCTION BOX | | | | | | | | | | | COMMENTS | |
| Cir. | Amp | Cir. | Amp | Cir. | Amp | Cir. | Amp | Cir. | Amp | Cir. | | Amp |
| 1 | | 6 | | 11 | | 16 | | 21 | | 26 | | |
| 2 | | 7 | | 12 | | 17 | | 22 | | 27 | | |
| 3 | | 8 | | 13 | | 18 | | 23 | | 28 | | |
| 4 | | 9 | | 14 | | 19 | | 24 | | 29 | | |
| 5 | | 10 | | 15 | | 20 | | 25 | | 30 | | |
| Shunt | Mv | | Amp | | | | | TOTAL | | | | |