

MARTIN YATES, III  
1912-1985

FRANK W. YATES  
1936-1986

S.P. YATES  
1914-2008



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118  
TELEPHONE (575) 748-1471  
[www.yatespetroleum.com](http://www.yatespetroleum.com)

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JAMES S. BROWN  
CHIEF OPERATING OFFICER

October 8, 2014

Mr. Mike Bratcher  
NMOCD District II  
811 South First Street  
Artesia, NM 88210

RE: Martha AIK Federal #6 Flow Line  
30-015-26960  
Section 11, T22S-R31E  
Eddy County, New Mexico

Mr. Bratcher,

Yates Petroleum Corporation would like to submit the following plan of work to you regarding the release that occurred at the above mentioned facility on August 9, 2014 (2RP-2491).

Initial TPH/BTEX and Chloride delineation samples were taken on 8/13/2014 for the release area. They were sent to a NMOCD approved facility and are attached for your review. Analytical reports showed that TPH/BTEX were non-detectable. There were elevated levels of chlorides found at 1' - 3' below ground level. Yates excavated 3' from the release area to remove these elevated chlorides. Yates then delineated the area further 4'-8' on 10/1/2014 (results are attached for your review).

Based off of further delineation and work previously completed, Yates proposes to do the following remaining work. Once this work is completed, Yates will submit a Final C-141 to your office for closure of this site.

1. Excavate the release area through 4' to remove the 3,160 ppm chlorides found.
2. Backfill the release are with clean, like soils.
3. Re-seed the area with BLM Lesser Prairie Chicken seed mixture.

Yates would like to start this work as soon as possible.

If you have any questions or concerns, I can be reached at (575) 748-4111 or by email at [acannon@yatespetroleum.com](mailto:acannon@yatespetroleum.com).

Thank You,

Amber Cannon  
Environmental Regulatory Agent  
Yates Petroleum Corporation





Google earth

feet 700  
meters 200





# Martha AIK Federal #6 Flow Line

## Cardinal Laboratories

|         | Analytical Report | Sample Area  | Sample Date | Sample Type  | Depth | BTEX | GRO  | DRO  | TOTAL | Chlorides |
|---------|-------------------|--------------|-------------|--------------|-------|------|------|------|-------|-----------|
| Comp 1' | H402503           | Release Area | 8/13/2014   | Comp/Auger   | 1'    | ND   | 17.5 | 295  | 312.5 | 3,040     |
| Comp 2' | H402503           | Release Area | 8/13/2014   | Comp/Auger   | 2'    | ND   | 16.6 | 287  | 303.6 | 1,810     |
| Comp 3' | H402503           | Release Area | 8/13/2014   | Comp/Auger   | 3'    | ND   | ND   | 41.1 | 41.1  | 2,840     |
| 4'      | H403010           | Release Area | 10/1/2014   | Grab/Backhoe | 4'    |      |      |      |       | 3,160     |
| 5'      | H403010           | Release Area | 10/1/2014   | Grab/Backhoe | 5'    |      |      |      |       | 1,880     |
| 6'      | H403010           | Release Area | 10/1/2014   | Grab/Backhoe | 6'    |      |      |      |       | 480       |
| 7'      | H403010           | Release Area | 10/1/2014   | Grab/Backhoe | 7'    |      |      |      |       | 48        |
| 8'      | H403010           | Release Area | 10/1/2014   | Grab/Backhoe | 8'    |      |      |      |       | 256       |

Excavated  
Excavated  
Excavated

Site Ranking is ZERO (0). Depth to Ground Water 100'-125' per ChevronTexaco Trend Map

All results are ppm.Chlorides for documentation.

Released: 10 B/PW, 10 B/O; Recovered: 0 B/PW, 0 B/O. Release Date: 8/9/2014. 2RP-???

August 18, 2014

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL #6 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 08/14/14 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

|                  |                              |
|------------------|------------------------------|
| Method EPA 552.2 | Haloacetic Acids (HAA-5)     |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)  |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received: 08/14/2014  
Reported: 08/18/2014  
Project Name: MARTHA AIK FEDERAL #6 FLOWLINE  
Project Number: 30-015-26960  
Project Location: EDDY COUNTY, NM

Sampling Date: 08/13/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: COMP 1' (H402503-01)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: ck |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 08/16/2014 | ND              | 1.86 | 93.0       | 2.00          | 6.39 |           |
| Toluene*       | <0.050 | 0.050           | 08/16/2014 | ND              | 1.70 | 85.1       | 2.00          | 6.29 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 08/16/2014 | ND              | 1.88 | 94.0       | 2.00          | 6.48 |           |
| Total Xylenes* | <0.150 | 0.150           | 08/16/2014 | ND              | 5.60 | 93.3       | 6.00          | 6.81 |           |
| Total BTEX     | <0.300 | 0.300           | 08/16/2014 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 89.4-126

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | 17.5   | 10.0            | 08/15/2014 | ND              | 172 | 86.1       | 200           | 2.06 |           |
| DRO >C10-C28 | 295    | 10.0            | 08/15/2014 | ND              | 180 | 90.0       | 200           | 4.42 |           |

Surrogate: 1-Chlorooctane 107 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received: 08/14/2014  
Reported: 08/18/2014  
Project Name: MARTHA AIK FEDERAL #6 FLOWLINE  
Project Number: 30-015-26960  
Project Location: EDDY COUNTY, NM

Sampling Date: 08/13/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: COMP 2' (H402503-02)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: ck |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 08/16/2014 | ND              | 1.86 | 93.0       | 2.00          | 6.39 |           |
| Toluene*       | <0.050 | 0.050           | 08/16/2014 | ND              | 1.70 | 85.1       | 2.00          | 6.29 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 08/16/2014 | ND              | 1.88 | 94.0       | 2.00          | 6.48 |           |
| Total Xylenes* | <0.150 | 0.150           | 08/16/2014 | ND              | 5.60 | 93.3       | 6.00          | 6.81 |           |
| Total BTEX     | <0.300 | 0.300           | 08/16/2014 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 105 % 89.4-126

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | 16.6   | 10.0            | 08/15/2014 | ND              | 172 | 86.1       | 200           | 2.06 |           |
| DRO >C10-C28 | 287    | 10.0            | 08/15/2014 | ND              | 180 | 90.0       | 200           | 4.42 |           |

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 117 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received: 08/14/2014  
Reported: 08/18/2014  
Project Name: MARTHA AIK FEDERAL #6 FLOWLINE  
Project Number: 30-015-26960  
Project Location: EDDY COUNTY, NM

Sampling Date: 08/13/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: COMP 3' (H402503-03)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: ck |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 08/16/2014 | ND              | 1.86 | 93.0       | 2.00          | 6.39 |           |
| Toluene*       | <0.050 | 0.050           | 08/16/2014 | ND              | 1.70 | 85.1       | 2.00          | 6.29 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 08/16/2014 | ND              | 1.88 | 94.0       | 2.00          | 6.48 |           |
| Total Xylenes* | <0.150 | 0.150           | 08/16/2014 | ND              | 5.60 | 93.3       | 6.00          | 6.81 |           |
| Total BTX      | <0.300 | 0.300           | 08/16/2014 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 89.4-126

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 08/15/2014 | ND              | 172 | 86.1       | 200           | 2.06 |           |
| DRO >C10-C28 | 41.1   | 10.0            | 08/15/2014 | ND              | 180 | 90.0       | 200           | 4.42 |           |


Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

|     |  |
|-----|--|
| ND  | Analyte NOT DETECTED at or above the reporting limit   |
| RPD | Relative Percent Difference  |
| **  | Samples not received at proper temperature of 6°C or below.  |
| *** | Insufficient time to reach temperature.  |
| -   | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<br>Samples reported on an as received basis (wet) unless otherwise noted on report |

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**Celey D. Keene, Lab Director/Quality Manager**







PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

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August 18, 2014

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL #6 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 08/14/14 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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|                  |                              |
|------------------|------------------------------|
| Method EPA 552.2 | Haloacetic Acids (HAA-5)     |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)  |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

|                   |                                |                     |               |
|-------------------|--------------------------------|---------------------|---------------|
| Received:         | 08/14/2014                     | Sampling Date:      | 08/13/2014    |
| Reported:         | 08/18/2014                     | Sampling Type:      | Soil          |
| Project Name:     | MARTHA AIK FEDERAL #6 FLOWLINE | Sampling Condition: | Cool & Intact |
| Project Number:   | 30-015-26960                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM                |                     |               |

**Sample ID: COMP 1' (H402503-01)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 3040   | 16.0            | 08/15/2014 | ND              | 416 | 104        | 400           | 3.92 |           |

**Sample ID: COMP 2' (H402503-02)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1810   | 16.0            | 08/15/2014 | ND              | 416 | 104        | 400           | 3.92 |           |

**Sample ID: COMP 3' (H402503-03)**

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 2840   | 16.0            | 08/15/2014 | ND              | 416 | 104        | 400           | 3.92 |           |

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

|     |   |
|-----|---|
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| RPD | Relative Percent Difference   |
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| *** | Insufficient time to reach temperature.   |
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\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Amber Cannon

Company Name Yates Petroleum Corporation

Company Address: 105 South 4th Street

City/State/Zip: Artesia, NM 88210

Telephone No: 575-748-4111 or 575-513-8799

Sampler Signature:

Fax No: 575-748-4131

e-mail:

acannon@yatespetroleum.com

Project Name: Martha Alk Federal #6 Flow Line

Project #: 30-015-26960

Project Loc: Eddy County

PO #: 205-2020

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Analyze For:

ORDER #: H402503

[illegible]

October 06, 2014

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL #6 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 10/02/14 11:30.

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|                  |                              |
|------------------|------------------------------|
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| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
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Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

|                   |                                |                     |               |
|-------------------|--------------------------------|---------------------|---------------|
| Received:         | 10/02/2014                     | Sampling Date:      | 10/01/2014    |
| Reported:         | 10/06/2014                     | Sampling Type:      | Soil          |
| Project Name:     | MARTHA AIK FEDERAL #6 FLOWLINE | Sampling Condition: | Cool & Intact |
| Project Number:   | 30-015-26960                   | Sample Received By: | Kathy Perez   |
| Project Location: | EDDY COUNTY, NM                |                     |               |

**Sample ID: 4' (H403010-01)**

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 3160   | 16.0            | 10/03/2014 | ND              | 416 | 104        | 400           | 0.00 |           |

**Sample ID: 5' (H403010-02)**

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1880   | 16.0            | 10/03/2014 | ND              | 416 | 104        | 400           | 0.00 |           |

**Sample ID: 6' (H403010-03)**

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 480    | 16.0            | 10/03/2014 | ND              | 416 | 104        | 400           | 0.00 |           |

**Sample ID: 7' (H403010-04)**

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 48.0   | 16.0            | 10/03/2014 | ND              | 416 | 104        | 400           | 3.77 |           |

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

|                   |                                |                     |               |
|-------------------|--------------------------------|---------------------|---------------|
| Received:         | 10/02/2014                     | Sampling Date:      | 10/01/2014    |
| Reported:         | 10/06/2014                     | Sampling Type:      | Soil          |
| Project Name:     | MARTHA AIK FEDERAL #6 FLOWLINE | Sampling Condition: | Cool & Intact |
| Project Number:   | 30-015-26960                   | Sample Received By: | Kathy Perez   |
| Project Location: | EDDY COUNTY, NM                |                     |               |

**Sample ID: 8' (H403010-05)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 256    | 16.0            | 10/03/2014 | ND              | 416 | 104        | 400           | 3.77 |           |

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\* = Accredited Analyte

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**Notes and Definitions**

|     |  |
|-----|--|
| ND  | Analyte NOT DETECTED at or above the reporting limit   |
| RPD | Relative Percent Difference  |
| **  | Samples not received at proper temperature of 6°C or below.  |
| *** | Insufficient time to reach temperature.  |
| -   | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<br>Samples reported on an as received basis (wet) unless otherwise noted on report |

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