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DELINEATION WORKPLAN

OXY – SUNDANCE 9 FEDERAL #3 CTB (Leak Date: 8/3/16)

RP # 2RP-3827 API # 30-015-27232

This delineation workplan and remediation proposal addresses the release associated with RP # 2RP-3827.

The following information includes:

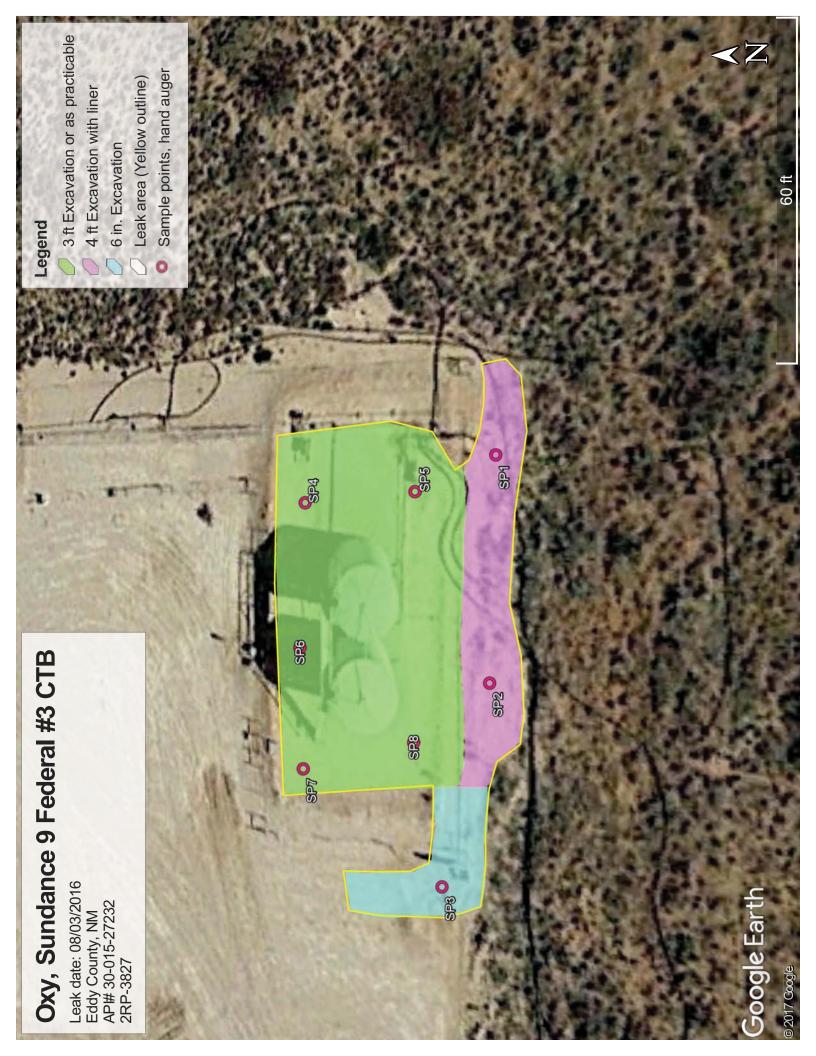
- 1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
- 2. GPS information for sample points and sample methodology
- 3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
- 4. Laboratory analysis results summary table and original laboratory analysis reports
- 5. A copy of the initial C-141
- 6. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD guidelines, the following remediation is proposed:

OXY will excavate the spill area as depicted on the following site diagram. The leak area near SP4, SP5, SP6, SP7, and SP8 (shaded in green) will be excavated to a depth of 3 feet or as practicable. The leak area near SP1 and SP2 (shaded in pink) will be excavated to a depth of 4 feet then an impermeable liner will be placed in the excavation. The leak area near SP3 (shaded in blue) will be excavated to a depth of 6 inches.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

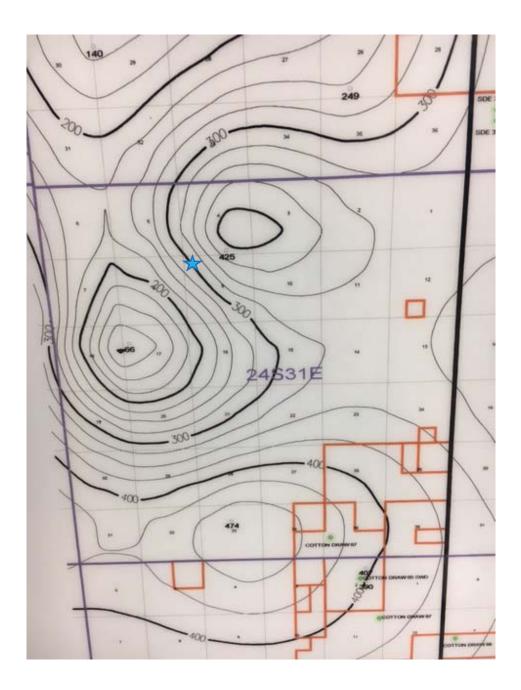


Oxy, Sundance 9 Federal #3 CTB

Sample points, hand auger

- SP1, N 32.23688 W-103.78886
- SP2, N 32.23689 W-103.78900
- SP3, N 32.23691 W-103.78913
- SP4, N 32.23700 W-103.78889
- SP5, N 32.23693 W-103.78888
- SP6, N 32.23700 W-103.78899
- SP7, N 32.23700 W-103.78907
- SP8, N 32.23693 W-103.78904

Oxy, Sundance 9 Federal #3 CTB U/L D, Section 9, T24S, R31E Groundwater: 300'



New Mexico Office of the State Engineer Water Column/Average Depth to Water

| (A CLW##### in the POD suffix indicates the POD has been | (R=POD) replaced, O=orphan | | 1 | | | | | 1 1 111 | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | |
|--|----------------------------------|---------------|--------|------|-----|------|--------|---------|--------------|---------|---|--------------------|-------------|------------|
| replaced & no longer | C=the file | e is | | (| qua | rtei | 's are | I=NW | 2=NE 3= | SW 4=SE | 5) | | | |
| serves a water right file.) | closed) | | | (| qua | rtei | s are | smalle | st to larges | it) (1 | NAD83 UTM in m | eters) | (In feet) | |
| | | POD | | | | | | | | | | | | |
| | | Sub- | | - | Q | _ | | | | | | | | Water |
| POD Number | Code | basin | County | 64 | 16 | 4 | Sec | Tws | Rng | Χ | Y | DistanceDepth | WellDepthWa | ter Columr |
| <u>C 02783</u> | | CUB | ED | 3 | 3 | 1 | 04 | 24S | 31E | 613911 | 3568461 | 1096 | 708 | |
| <u>C 02783 POD2</u> | | С | ED | 3 | 3 | 1 | 04 | 24S | 31E | 613911 | 3568461 | 1096 | 672 | |
| <u>C 02784</u> | | С | ED | 4 | 2 | 4 | 04 | 24S | 31E | 613911 | 3568461 | 1096 | 584 | |
| C 02661 | | | ED | 3 | 3 | 1 | 04 | 24S | 31E | 613969 | 3568485* | 1111 | 708 | |
| <u>C 02785</u> | | | ED | 3 | 3 | 1 | 04 | 24S | 31E | 613969 | 3568485* | 1111 | 692 | |
| | | | | | | | | | | | Avera | ge Depth to Water: | | |
| | | | | | | | | | | | | Minimum Depth | : | |
| | | | | | | | | | | | | Maximum Depth: | | |
| Record Count: 5 | | | | | | | | | | | | | | |
| UTMNAD83 Radiu | <u>ıs Search (in</u> | <u>meters</u> | i): | | | | | | | | | | | |
| Easting (X): 614 | 4082 | | North | hing | (Y |): | 3567 | 379 | | | Radius: 1700 | | | |
| *UTM location was derive | ed from PLSS | S - see H | eln | | | | | | | | | | | |

7/18/17 9:40 AM

?

WATER COLUMN/ AVERAGE DEPTH TO WATER

UTM Conversion Tool

| O Q64: | Q16: NW Q4: NW Sec: C | 99 Tws: 24S Rng: 31E |
|-----------------------------------|---|------------------------------|
| O X: 0 ft | State Plane Coordinate S Y: 0 ft Zone: | ystem - NAD27 |
| O x: <mark>0 ft</mark> | State Plane Coordinate S Y: 0 ft Zone: | ystem - NAD83 |
| O Longitude (X): Latitude (Y): | Degrees/Minutes/S Degrees: 0 ° Minu Degrees: 0 ° Minu | |
| O Easting (X): 0 | UTM - NAD2 mtrs Northing (Y): 0 mtr | |
| | SUBMIT Conversion Results are displayed | - |
| All Easting (X): | 614082.0 mtrs ~~ Please keep screen open to copy U | Northing (Y): 3567379.0 mtrs |
| | | |
| | | |

Laboratory Analytical Results Summary Sundance 9 Federal #3

| | | Sample | SP1 @ 1' | SP1 @ 3' | SP1 @ 5' | SP1 @ 7' | SP1 @ 9' |
|----------|------------|--------|----------|----------|----------|----------|----------|
| Analyte | Method | Date | 8/11/16 | 8/11/16 | 8/11/16 | 8/11/16 | 8/11/16 |
| | | | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Chloride | SM4500CI-B | | 16000 | 25200 | 880 | 1390 | 1230 |

| | | Sample | SP2 @ 1' | SP2 @ 3' | SP2 @ 5' | SP2 @ 7' | SP2 @ 9' |
|---------------|------------|--------|----------|----------|----------|----------|----------|
| Analyte | Method | Date | 8/11/16 | 8/11/16 | 8/11/16 | 8/11/16 | 8/11/16 |
| | | | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Benzene | BTEX 8021B | | <0.050 | n/a | n/a | n/a | n/a |
| Toluene | BTEX 8021B | | <0.050 | n/a | n/a | n/a | n/a |
| Ethylbenzene | BTEX 8021B | | <0.050 | n/a | n/a | n/a | n/a |
| Total Xylenes | BTEX 8021B | | <0.150 | n/a | n/a | n/a | n/a |
| Total BTEX | BTEX 8021B | | <0.300 | n/a | n/a | n/a | n/a |
| Chloride | SM4500CI-B | | 15600 | 27600 | 960 | 1100 | 1310 |
| GRO | TPH 8015M | | <10.0 | n/a | n/a | n/a | n/a |
| DRO | TPH 8015M | | <10.0 | n/a | n/a | n/a | n/a |

| | | Sample | SP3 @ 1' | SP3 @ 2' |
|----------|------------|--------|----------|----------|
| Analyte | Method | Date | 8/11/16 | 8/15/16 |
| | | | mg/Kg | mg/Kg |
| Chloride | SM4500CI-B | | 160 | <16.0 |

| | | Sample | SP4 @ 1' | SP4 @ 3' | SP4 @ 4' |
|----------|------------|--------|----------|----------|----------|
| Analyte | Method | Date | 8/15/16 | 8/15/16 | 8/15/16 |
| | | | mg/Kg | mg/Kg | mg/Kg |
| Chloride | SM4500CI-B | | 13600 | 576 | 160 |

| | | Sample | SP5 @ 1' | SP5 @ 3' | SP5 @ 4' |
|----------|------------|--------|----------|----------|----------|
| Analyte | Method | Date | 8/15/16 | 8/15/16 | 8/15/16 |
| | | | mg/Kg | mg/Kg | mg/Kg |
| Chloride | SM4500CI-B | | 5600 | 752 | 160 |

| | | Sample | SP6 @ 1' | SP6 @ 3' | SP6 @ 4' |
|---------------|------------|--------|----------|----------|----------|
| Analyte | Method | Date | 8/15/16 | 8/15/16 | 8/15/16 |
| | | | mg/Kg | mg/Kg | mg/Kg |
| Benzene | BTEX 8021B | | <0.050 | n/a | n/a |
| Toluene | BTEX 8021B | | <0.050 | n/a | n/a |
| Ethylbenzene | BTEX 8021B | | <0.050 | n/a | n/a |
| Total Xylenes | BTEX 8021B | | <0.150 | n/a | n/a |
| Total BTEX | BTEX 8021B | | <0.300 | n/a | n/a |
| Chloride | SM4500CI-B | | 4960 | 752 | 144 |
| GRO | TPH 8015M | | <10.0 | n/a | n/a |
| DRO | TPH 8015M | | <10.0 | n/a | n/a |

| | | Sample | SP7 @ 1' | SP7 @ 3' | SP7 @ 4' |
|----------|------------|--------|----------|----------|----------|
| Analyte | Method | Date | 8/16/16 | 8/16/16 | 8/16/16 |
| | | | mg/Kg | mg/Kg | mg/Kg |
| Chloride | SM4500CI-B | | 4720 | 416 | 160 |

| | | Sample | SP8 @ 1' | SP8 @ 3' | SP8 @ 4' |
|----------|------------|--------|----------|----------|----------|
| Analyte | Method | Date | 8/16/16 | 8/15/16 | 8/15/16 |
| | | | mg/Kg | mg/Kg | mg/Kg |
| Chloride | SM4500CI-B | | 5520 | 1360 | 144 |



August 22, 2016

Cliff Brunson BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SUNDANCE 9 FED #3

Enclosed are the results of analyses for samples received by the laboratory on 08/17/16 13:17.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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,

Celecz D. Keine

Celey D. Keene Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

| Received: | 08/17/2016 | Sampling Date: | 08/11/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 1 @ 1' (H601842-01)

| Chloride, SM4500Cl-B | mg, | /kg | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 16000 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: SP 1 @ 3' (H601842-02)

| Chloride, SM4500Cl-B | mg/ | /kg | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 25200 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: SP 1 @ 5' (H601842-03)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 880 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: SP 1 @ 7' (H601842-04)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1390 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |

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*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

| Received: | 08/17/2016 | Sampling Date: | 08/11/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 1 @ 9' (H601842-05)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1230 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: SP 2 @ 1' (H601842-06)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/18/2016 | ND | 2.30 | 115 | 2.00 | 1.39 | |
| Toluene* | <0.050 | 0.050 | 08/18/2016 | ND | 2.35 | 117 | 2.00 | 1.25 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/18/2016 | ND | 2.25 | 113 | 2.00 | 1.81 | |
| Total Xylenes* | <0.150 | 0.150 | 08/18/2016 | ND | 6.81 | 113 | 6.00 | 1.86 | |
| Total BTEX | <0.300 | 0.300 | 08/18/2016 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 107 9 | 73.6-14 | 0 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 15600 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |

| IPH 8015M | mg/ | кд | Analyze | а ву: м5 | λγ: MS | | | | | |
|-------------------------------|--------|-----------------|------------|--------------|--------|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10 | <10.0 | 10.0 | 08/17/2016 | ND | 189 | 94.3 | 200 | 7.74 | | |
| DRO >C10-C28 | <10.0 | 10.0 | 08/17/2016 | ND | 198 | 98.9 | 200 | 7.06 | | |
| Surrogate: 1-Chlorooctane | 92.8 9 | % 35-147 | , | | | | | | | |
| Surrogate: 1-Chlorooctadecane | 105 % | 6 28-171 | | | | | | | | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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| Received: | 08/17/2016 | Sampling Date: | 08/11/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 2 @ 3' (H601842-07)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 27600 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: SP 2 @ 5' (H601842-08)

| Chloride, SM4500Cl-B | mg | /kg | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 960 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 2 @ 7' (H601842-09)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1100 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 3.77 | |

Sample ID: SP 2 @ 9' (H601842-10)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1310 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 3 @ 1' (H601842-11)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 160 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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| Received: | 08/17/2016 | Sampling Date: | 08/15/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 3 @ 2' (H601842-12)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | <16.0 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 4 @ 1' (H601842-13)

| Chloride, SM4500CI-B | mg/ | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 13600 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 4 @ 3' (H601842-14)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 576 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 4 @ 4' (H601842-15)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 160 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 5 @ 1' (H601842-16)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 5600 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

| Received: | 08/17/2016 | Sampling Date: | 08/15/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 5 @ 3' (H601842-17)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 752 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 5 @ 4' (H601842-18)

| Chloride, SM4500Cl-B | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 160 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

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Celey D. Keene, Lab Director/Quality Manager



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| Received: | 08/17/2016 | Sampling Date: | 08/15/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 6 @ 1' (H601842-19)

| BTEX 8021B | mg/ | kg | Analyze | d By: MS | | | | | |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifie |
| Benzene* | <0.050 | 0.050 | 08/18/2016 | ND | 2.30 | 115 | 2.00 | 1.39 | |
| Toluene* | <0.050 | 0.050 | 08/18/2016 | ND | 2.35 | 117 | 2.00 | 1.25 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/18/2016 | ND | 2.25 | 113 | 2.00 | 1.81 | |
| Total Xylenes* | <0.150 | 0.150 | 08/18/2016 | ND | 6.81 | 113 | 6.00 | 1.86 | |
| Total BTEX | <0.300 | 0.300 | 08/18/2016 | ND | | | | | |
| Surrogate: 4-Bromofluorobenzene (PID | 106 % | 6 73.6-14 | 0 | | | | | | |
| Chloride, SM4500Cl-B | mg/ | kg | Analyze | d By: AC | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 4960 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |
| TPH 8015M | mg/ | kg | Analyze | d By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 08/17/2016 | ND | 189 | 94.3 | 200 | 7.74 | |
| DRO >C10-C28 | <10.0 | 10.0 | 08/17/2016 | ND | 198 | 98.9 | 200 | 7.06 | |
| Surrogate: 1-Chlorooctane | 95.7 9 | 6 35-147 | , | | | | | | |
| | | | | | | | | | |

Sample ID: SP 6 @ 3' (H601842-20)

| Chloride, SM4500Cl-B | mg, | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 752 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

| Received: | 08/17/2016 | Sampling Date: | 08/15/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 6 @ 4' (H601842-21)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 7 @ 1' (H601842-22)

| Chloride, SM4500Cl-B | mg/ | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 4720 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 7 @ 3' (H601842-23)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 416 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 7 @ 4' (H601842-24)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 160 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 8 @ 1' (H601842-25)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 5520 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

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*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

| Received: | 08/17/2016 | Sampling Date: | 08/16/2016 |
|-------------------|-------------------|---------------------|----------------|
| Reported: | 08/22/2016 | Sampling Type: | Soil |
| Project Name: | SUNDANCE 9 FED #3 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 8 @ 3' (H601842-26)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1360 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 8 @ 4' (H601842-27)

| Chloride, SM4500Cl-B | mg | /kg | Analyze | d By: AC | | | | | |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 08/19/2016 | ND | 432 | 108 | 400 | 0.00 | |

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Celeg D. Keine

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 Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Keine

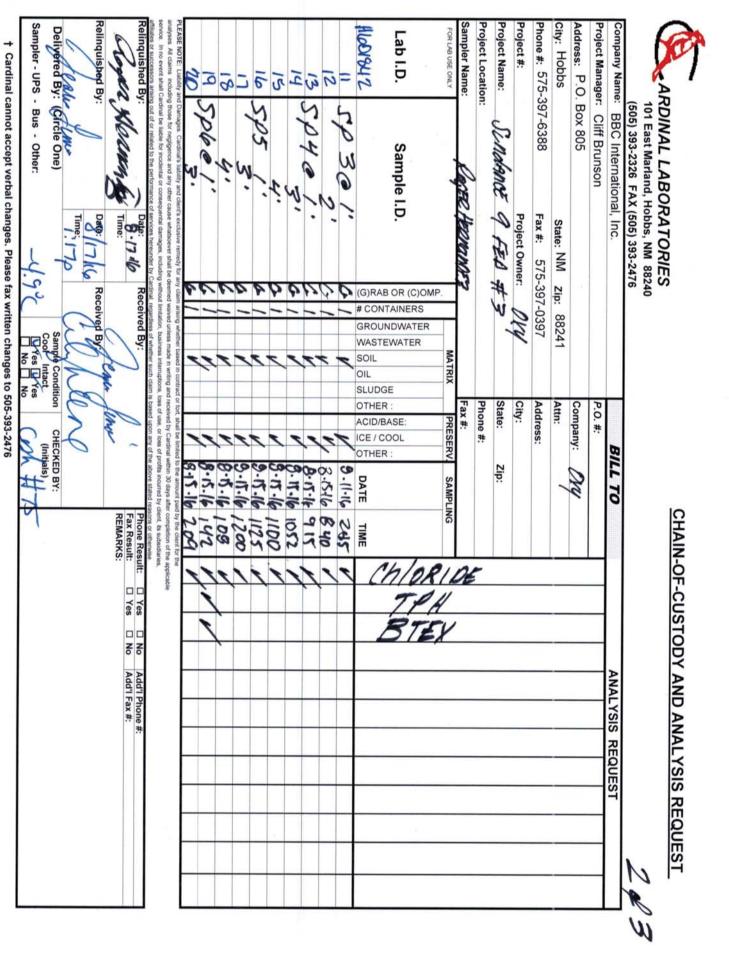
Celey D. Keene, Lab Director/Quality Manager

Page 10 of 13

| Company Name: DDC Intorn | DDC International Inc | | т. |
|--|---|--|--|
| Project Manager: Cliff Brunson | on | P.O. #: | |
| Address: P.O. Box 805 | (4 | Company: OW | |
| city: Hobbs | State: NM Zip: 88241 | Attn: | |
| Phone #: 575-397-6388 | (J) | Address: | |
| Project #: | Project Owner: OVV | City: | |
| Project Name: Sundance | | State: Zip: | |
| Project Location: | | Phone #: | |
| Sampler Name: | PODER HERMANDEZ | Fax #: | |
| FOR LAB USE ONLY | RS TER | PRESERV, SAMPLING | 0H 0H TEX |
| Lab I.D. Samp | (G)RAB OR (C # CONTAINED GROUNDWA WASTEWATE SOIL OIL | SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE | 71 |
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| PLEASE NOTE: Liability and Damages. Cardinal's liability and cl analyses. All claims including those for negligence and any other service. In no event shall Cardinal be liable for incidental or cons | iability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable ental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, | tract or tort, shall be limited to the amount paid by the client for the a and received by Cardinal within 30 days after completion of the a ons, loss of use, or loss of profits incurred by client, its subsidiaries | or the the applicable larkes, |
| Relinquished By: | Time: 7.16 Received By: | Fax Result: REMARKS: | esset Beult: □ Yes □ No Add'I Phone #: Ift: □ Yes □ No Add'I Fax #: (S: |
| Relinquished By: | Time: The Received By: | 0610 | |
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| Complet HIDO Due Other | | | |

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Page 11 of 13



Page 12 of 13

| State: N Fax #: Project 0 | ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476 Company Name: BBC International, Inc. Project Manager: Cliff Brunson |
|--------------------------------------|---|
| State: NI Fax #: 5 | |
| IM zip: 882 575-397-0397 wner: | TORIES os, NM 88240 5) 393-2476 nc. |
| 41 | |
| Company: 24 Attn: Address: | BILL 1 |
| h | <u>CHAIN-OF-CU</u> |
| | |
| | STODY AND ANALYSIS REQUEST |
| | ALYSIS RE |
| | |
| | Company: VY Attn: Address: |

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

| 1220 S. St. Fran | cis Dr., Santa | a Fe, NM 87505 | 5 | Sa | inta Fe | e, NM 875 | 05 | | | | |
|--|---|----------------|--------------|-----------------------|---|---------------------------------------|----------------------|-----------------------|----------------------------|------------------------|--|
| | | | Relea | ase Notifica | ation | and Co | rrective Ac | tion | | | |
| | | | | | l | OPERAT | OR | 🛛 Initial | Report | Final Report | |
| Name of Company Oxy Permian Ltd. | | | | | | Contact Casey Summers | | | | | |
| Address 6 Desta Drive, Midland, TX 79705 | | | | | | Telephone No. (575) 513-8289 | | | | | |
| Facility Name Sundance 9 Federal #3 CTB | | | | | | Facility Type Battery | | | | | |
| Surface Owner BLM Mineral Owner | | | | | | API No. 30-015-27232 | | | | | |
| | | | | LOCA | TION | OF REL | EASE | | | | |
| Unit Letter | Section | Township | Range | Feet from the | | South Line | East/West Line | County | | | |
| D | 9 | 24S | 31E | | | | | | Eddy | | |
| | | | I. | atitude <u>N 32.2</u> | 3692° | Longitud | e <u>W 103.78886</u> | o i | | | |
| | | | | | | 2 | | - | | | |
| Type of Rele | ase Pro du | iced water | | | UKE | OF RELE | Release 238 bb | ls Volume R | ecovered | 120 bbls | |
| | Type of Release Produced water Source of Release Corrosion of a nipple on the water transfer line | | | | | | Iour of Occurrent | | Date and Hour of Discovery | | |
| Was Immadi | 117 1 1's bl.s. 20° n | | | | | | 08/03/2016 | | | | |
| was minicul | Was Immediate Notice Given? | | | | | | | | | | |
| By Whom? | Kathy Pu | rvis @ BBC li | nternation | al Inc. | | Date and Hour 08/03/2016 @ 12:37 pm | | | | | |
| Was a Watercourse Reached? | | | | | If YES, Volume Impacting the Watercourse. | | | | | | |
| 17 | _ | | | | | | | | | | |
| If a Watercon | irse was Im | pacted, Descr | ibe Fully | | | | | | | | |
| | | | | | | | | | | | |
| Describe Cau | use of Probl | em and Reme | dial Actio | n Taken.* | | | | | | | |
| Corrosion of | a nipple on | the water trai | nsfer line (| aused a 238 bbls | leak of | produced wat | er. A vacuum tru | ck recovered 120 b | bls and the | e nipple was replaced. | |
| | | | | | | | | | | | |
| Describe Are | a Affected | and Cleanup | Action Tal | ken.* | | | | | | | |
| The affected | area is appr | oximately 10 | 0' x 50' w | ith most of the lea | ak stavir | ng on location | . Remediation w | ill be completed in | accordanc | e with an approved | |
| | | MOCD and t | | | | 0 | | | | | |
| L harabu carti | fu that the i | information a | ivon abov | is the and come | data to t | ha hart of mu | knowledge and y | nderstand that purs | uant to NI | AOCD miles and | |
| | | | | | | | | tive actions for rele | | | |
| | | | | | | | | eport" does not reli | | | |
| should their (| operations b | ave failed to: | adequately | investigate and i | remediat | e contaminati | ion that pose a thr | eat to ground water | , surface v | vater, human health | |
| | | | | stance of a C-141 | report d | loes not reliev | e the operator of | responsibility for co | ompliance | with any other | |
| federal, state | <u>, or local la</u> | ws and/or regi | ulations. | | | | | | | | |
| | | 1 | | | | | OIL CON | SERVATION | DIVISI | UN | |
| Signature: | | N | | | | | | | | | |
| | | | | | | Approved by Environmental Specialist: | | | | | |
| Printed Nam | e: Casey | Summers | | | | | | | | | |
| Title: NM | Environmer | tal Advisor | | | | Approval Da | te: | Expiration | Date: | | |
| E-mail Adde | acci Caca | v. Summarca | | | | Conditions o | f Approval: | | | | |
| E-mail Address: Casey_Summers@oxy.com | | | | | | Conditions 0 | | Attached | | | |
| Date: | 8-1 | 1-16 | Phone | : (575) 513-828 | 39 | | | | | | |

* Attach Additional Sheets If Necessary