

Republic Backhoe Service, LLC

47 E. Dickens

Lovington, NM 88260

(575) 631-0131

February 12, 2019

District II

811 S. First St.

Artesia, NM 88210

Subject: Site Assessment/Soil Remediation Work Plan for the Saragossa 10 State #3, Eddy County, New Mexico.

Mr. Bratcher,

On behalf of Read & Stevens, Inc. Republic Backhoe Service, LLC (RBS) has prepared this Site Assessment/Work Plan which describes the site assessment, preliminary delineation and proposed remediation plan for a release associated with the Saragossa 10 State #3. The site is located in Unit A, Section 10, Township 23 South, and Range 26 East, NMPM, Eddy County, New Mexico, on NM State land. Attachment #1 illustrates the vicinity and location of the site. Piedmont alluvial deposits from the Holocene to the Pleistocene age make up the subsurface of the area (mrdata.usgs.gov, Attachment #3). The surface is comprised of Regan Upton soils which consist of loamy deposits of quaternary age that are moderately dark colored and loamy. Hard caliche is encountered at 3-4 feet below the loamy surface (Soil Survey Eddy Area, NM 1971). The soil is generally dry except in times of rain. The site is not within a 100-year floodplain (FEMA Fimetter Map Attachment #8). The vegetation consists of black grama, blue grama, tobosa, side-outs, bush muhly, tarbush, creosote bush, vine mesquite, and yucca. The state of New Mexico owns the surface and is overseen by the State Land Office and leased out for grazing.

Table 1. below, summarizes information regarding the release.

Nature and Volume of Release

| Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below) | | |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Crude Oil | Volume Released (bbls) 15.09 | Volume Recovered (bbls) 0 |
| <input checked="" type="checkbox"/> Produced Water | Volume Released (bbls) 49.62 | Volume Recovered (bbls) 0 |
| | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> Condensate | Volume Released (bbls) | Volume Recovered (bbls) |
| <input type="checkbox"/> Natural Gas | Volume Released (Mcf) | Volume Recovered (Mcf) |
| <input type="checkbox"/> Other (describe) | Volume/Weight Released (provide units) | Volume/Weight Recovered (provide units) |
| Cause of Release | | |
| The release was attributed to a blown packing at the well head. The well was repacked and put back on in operation. | | |

Regulatory Guidelines

New Mexico Oil Conversation Division (NMOCD) regulates surface impacts from unauthorized releases of crude oil, gases, produced water, condensate or other oil field waste in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). In accordance to NMAC 19.15.29 the Saragossa 10 State #2 is assessed by the following guidelines: Table 2 below.

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| What is the shallowest depth to groundwater beneath the area affected by the release? | <u>222</u> (ft bgs) |
| Did this release impact groundwater or surface water? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a wetland? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying a subsurface mine? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within a 100-year floodplain? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Did the release impact areas not on an exploration, development, production, or storage site? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

GroundWater Depth

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within 2000 meters (Attachment #4). The search determined that the average depth to groundwater at the site to be 222 feet (bgs).

Wellhead Protection Area

A search of a groundwater database maintained by NMOSE identified registered wells within 2000 meters of the release at the site (Attachment #5). The search determined that the nearest registered water well is 1,107' (See Attachment 5). Also, the horizontal measurement of the lateral extent of the spill (Sample Point Pad3-6) to the nearest permanent residence is 992 feet (See Attachment 6).

Closure Criteria

The following table explains the NMOCD permissible levels for the site: Table 3 below.

| Table I Closure Criteria for Soils Impacted by a Release | | | |
|-----------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------|--------------|
| Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS | Constituent | Method* | Limit** |
| >100 feet | Chloride*** | EPA 300.0 or SM4500 Cl B | 20,000 mg/kg |
| | TPH (GRO+DRO+MRO) | EPA SW-846 Method 8015M | 2,500 mg/kg |
| | GRO+DRO | EPA SW-846 Method 8015M | 1,000 mg/kg |
| | BTEX | EPA SW-846 Method 8021B or 8260B | 50 mg/kg |
| | Benzene | EPA SW-846 Method 8021B or 8260B | 10 mg/kg |

Site Assessment/Delineation

On November 16, 2018, RBS went to the location to delineate the site. According to the Spill Calculations (See Attachment 10) 100% of the release stayed on the well pad (Attachment 11 Spill Calculation Map). The release poses no threat to ground water as laboratory results concluded that no TPH/Chloride concentrations were found at 2' (bgs). Furthermore, soil samples collected and analyzed at 5' (bgs) show constituents level significantly lower than NMOCD permissible levels. A backhoe was used to dig a total of 8 trenches at the site (See Attachment #2). Samples were collected at surface, 2 feet (bgs), and 5 feet (bgs). The following table summarizes the laboratory analytical results from the soil samples collected during the site assessment: Table 4 below.

Laboratory Analysis (Table 4)

| Name | Date | Depth | Chlorides | Benezene | BTEX | TPH(DRO,GRO,EXT DRO) | Lithology | Soil | Pad/Pasture | Within 1000' FW Well |
|----------|----------|---------|-----------|----------|--------|------------------------|-----------|------|-------------|----------------------|
| Pad3-1-S | 11/16/18 | Surface | 5520 | <0.500 | 2.91 | 7,466(136,6270,1060) | Sandy | GM | Pad | No |
| Pad3-1-2 | 11/16/18 | 2 | 64 | <0.050 | <0.300 | 195.9(0,161,34.9) | Loam | ML | | |
| Pad3-1-5 | 11/16/18 | 5 | 320 | <0.050 | <0.300 | 129.3(0,86.2,43.1) | Caliche | GM | | |
| Pad3-2-S | 11/16/18 | Surface | 26000 | <0.050 | <0.300 | 13,850(0,11100,2750) | Sandy | GM | Pad | No |
| Pad3-2-2 | 11/16/18 | 2 | 9000 | <0.050 | <0.300 | <10.0 | Loam | ML | | |
| Pad3-2-5 | 11/16/18 | 5 | 768 | <0.050 | <0.300 | 103.9(0,65.2,38.7) | Caliche | GM | | |
| Pad3-3-S | 11/16/18 | Surface | 26800 | <0.500 | 2.00 | 73559(159,59800,13600) | Sandy | GM | Pad | No |
| Pad3-3-2 | 11/16/18 | 2 | 160 | <0.050 | <0.300 | 181.17(0,124,57.7) | Loam | ML | | |
| Pad3-3-5 | 11/16/18 | 5 | 96 | <0.050 | <0.300 | 78(0,78,0) | Caliche | GM | | |
| Pad3-4-S | 11/16/18 | Surface | 18800 | <0.050 | 5.18 | 57095(435,47200,9460) | Sandy | GM | Pad | No |
| Pad3-4-2 | 11/16/18 | 2 | 144 | <0.050 | <0.300 | 116.7(0,102,14.7) | Loam | ML | | |
| Pad3-4-5 | 11/16/18 | 5 | 96 | <0.050 | <0.300 | 56.1(0,56.1,0) | Caliche | GM | | |
| Pad3-5-S | 11/16/18 | Surface | 20800 | <0.090 | <0.300 | 72300(0,59500,12800) | Sandy | GM | Pad | No |
| Pad3-5-2 | 11/16/18 | 2 | 256 | <0.050 | <0.300 | 288(0,181,107) | Loam | ML | | |
| Pad3-5-5 | 11/16/18 | 5 | 176 | <0.050 | <0.300 | 40(0,23.2,16.8) | Caliche | GM | | |
| Pad3-6-S | 11/16/18 | Surface | 21600 | <0.500 | <0.300 | 72300(0,59500,12800) | Sandy | GM | Pad | No |
| Pad3-6-2 | 11/16/18 | 2 | 528 | <0.050 | <0.300 | <10.0 | Loam | CL | | |
| Pad3-6-5 | 11/16/18 | 5 | 128 | <0.050 | <0.300 | <10.0 | Caliche | GM | | |
| Pad3-7-S | 11/16/18 | Surface | 1040 | <0.050 | <0.300 | 4,493(0,3510,983) | Sandy | ML | Pasture | No |
| Pad3-7-2 | 11/16/18 | 2 | 48 | <0.050 | <0.300 | <10.0 | Loam | ML | | |
| Pad3-7-5 | 11/16/18 | 5 | 144 | <0.050 | <0.300 | <10.0 | Caliche | GM | | |
| Pad3-8-S | 11/16/18 | Surface | 160 | <0.500 | <0.300 | 136(0,95.6,40.4) | Sandy | ML | Pasture | No |
| Pad3-8-2 | 11/16/18 | 2 | 64 | <0.050 | <.300 | <10.00 | Loam | CL | | |
| Pad3-8-5 | 11/16/18 | 5 | 48 | <0.050 | <0.300 | <10.0 | Caliche | GM | | |

Remediation Plan

Commencement Date: February 25, 2019

Completion Date: March 4, 2019

The following remediation plan is in accordance with 19.15.29.12 NMAC, remediation of releases on oil well pads. All the remedial activities will be taking place on the Saragossa 10 State #3 well pad. (See Attachment 7). The release poses no threat to ground water.

Poly #1

The preliminary site delineation concluded that the vertical extent of the spill was less than 2' (bgs). A sample at 5' (bgs) further confirms this result. Poly #1 area measures approximately 1,969 square feet. We propose that this area be excavated to a depth less than 2'. An estimated 40 cubic yards will be excavated from this area. The contaminated soil will be hauled to an NMOCD approved disposal site. NMOCD will be contacted to schedule a time to witness bottom hole sampling. Once, bottom hole samples are within NMOCD permissible limits then the area will be backfilled with caliche to rebuild to well pad.

Poly #2

The preliminary site delineation concluded that the vertical extent of the spill was less than 2' (bgs). A sample at 5' (bgs) further confirms this result. Poly #2 area measures approximately 3,913 square feet. We propose that this area be excavated to a depth less than 2'. An estimated 100 cubic yards will be excavated from this area. The contaminated soil will be hauled to an NMOCD approved disposal site. NMOCD will be contacted to schedule a time to witness bottom hole sampling. Once, bottom hole samples are within NMOCD permissible limits then the area will be backfilled with caliche to rebuild to well pad.

Spray Area:

The preliminary site delineation concluded that the spray area samples were within the NMOCD permissible remedial levels. No further action will be needed in this area.

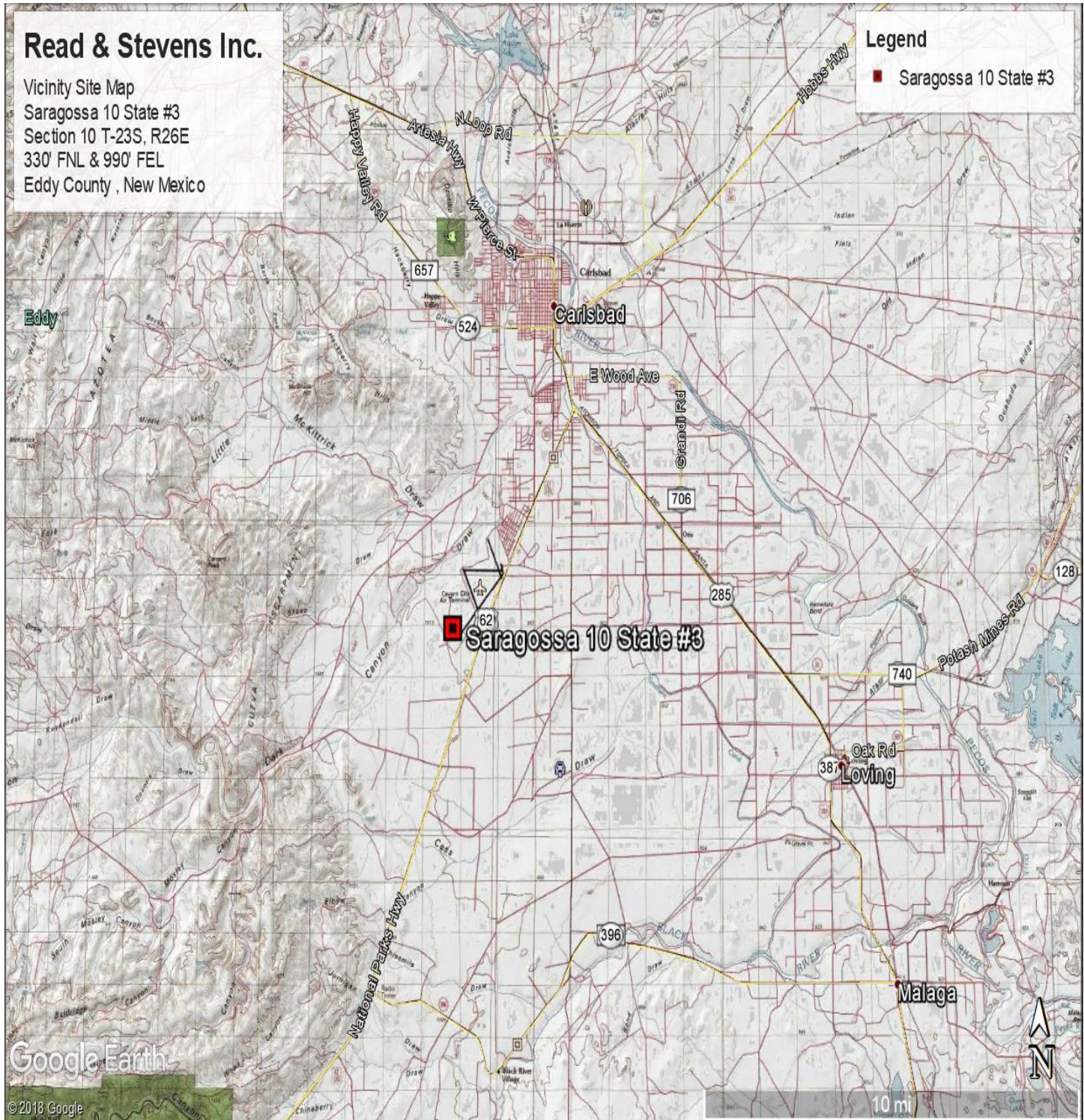
IF you have any questions please email me or call me at (575) 631-0131.

Thank you



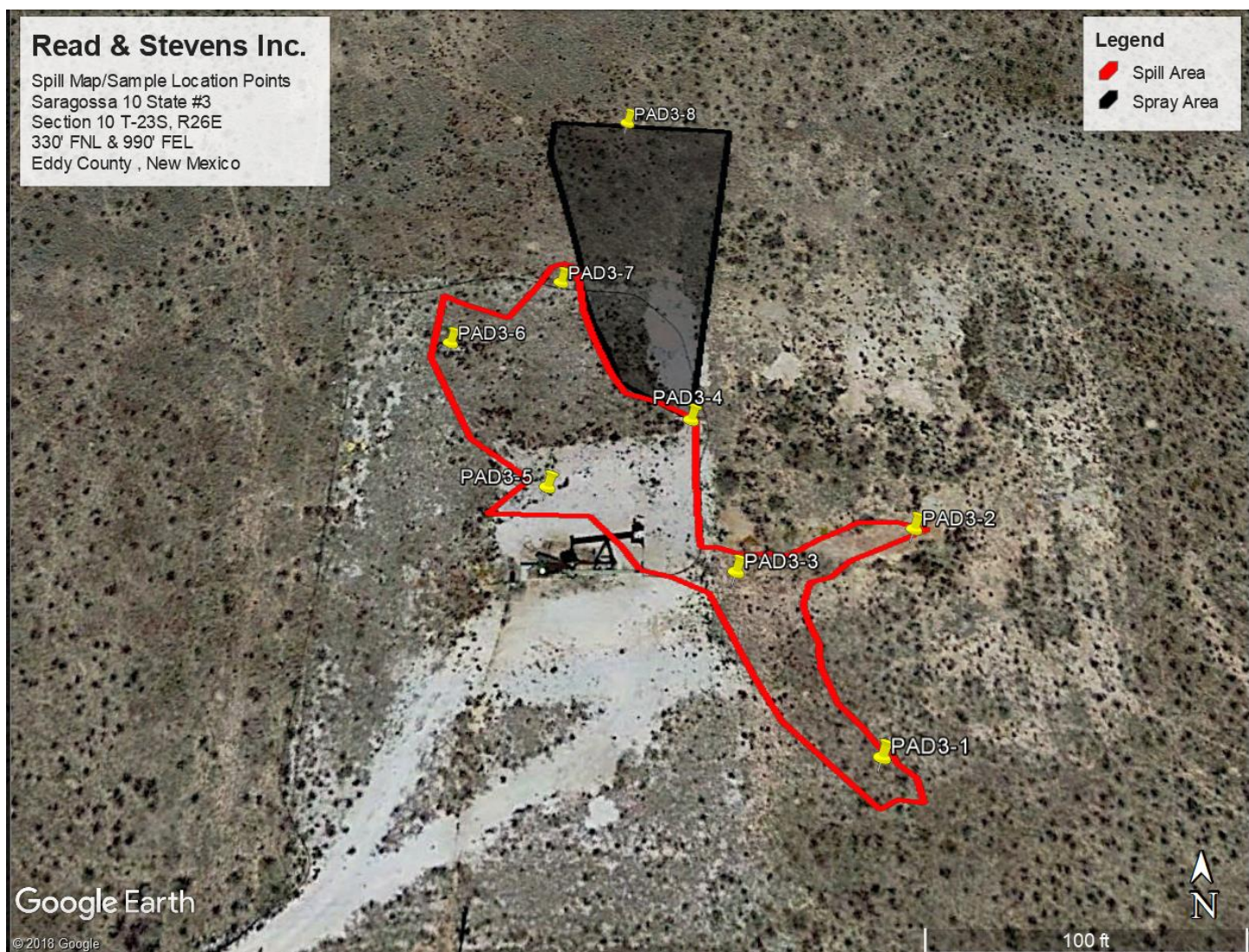
Eric Garcia
Republic Backhoe Service, LLC

Attachment 1
Vicinity Area Map

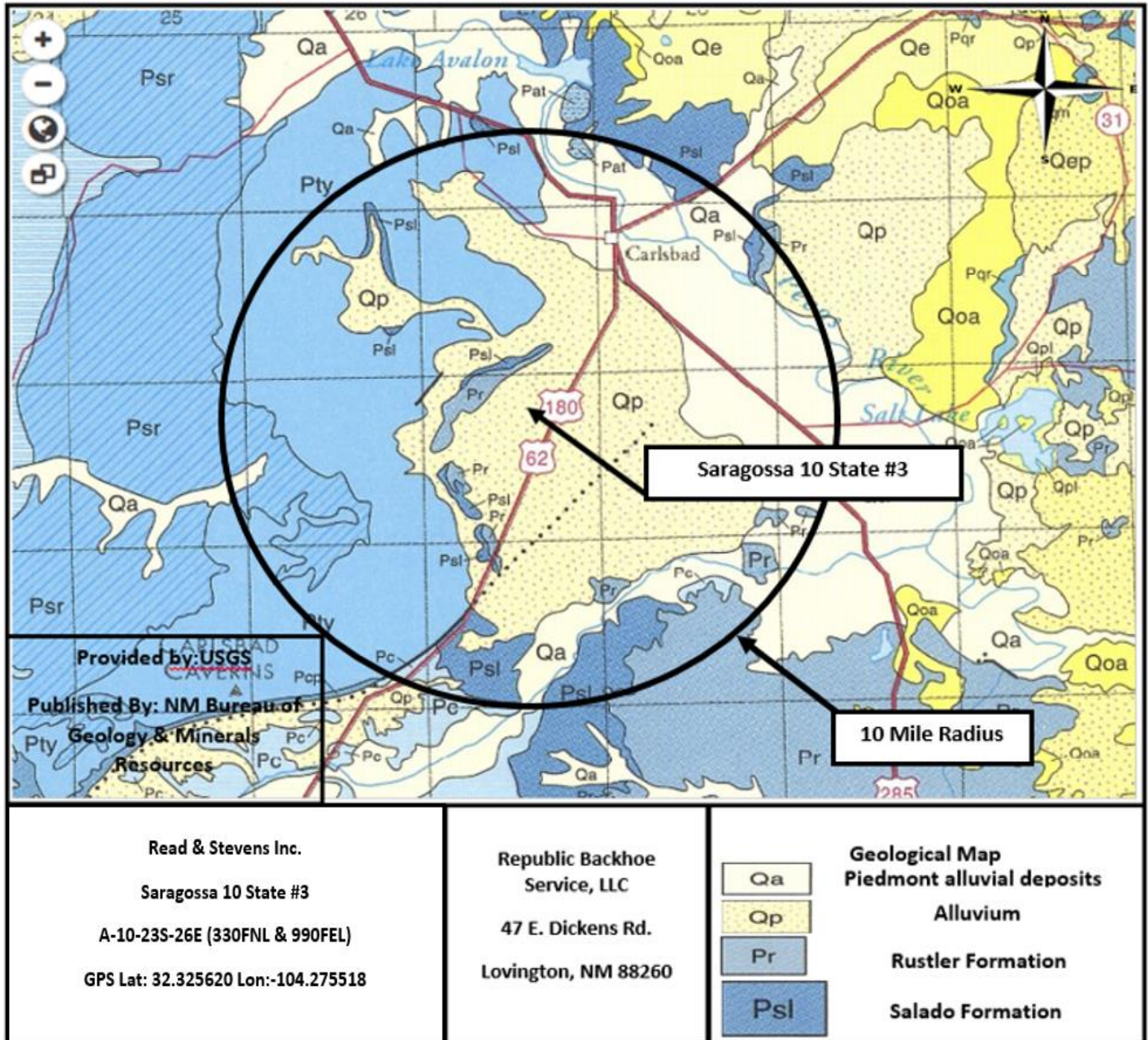




Attachment 2
Spill Map/Sample Location Points



Attachment #3
Geological Map



Attachment #4

NMOSE Average Depth to Water



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

| POD Number | Code | POD Sub-basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X | Y | Distance | Depth | Well | Depth | Water Column |
|-------------------------|------|---------------|--------|------|------|-----|-----|-----|-----|--------|----------|----------|-------|------|-------|--------------|
| C 02264 | | CUB | ED | 4 | 03 | 23S | 26E | | | 568065 | 3577254* | 523 | 260 | | | |
| C 02382 | | C | ED | 4 | 03 | 23S | 26E | | | 568065 | 3577254* | 523 | 288 | | 248 | 40 |
| C 02393 | | C | ED | 4 | 03 | 23S | 26E | | | 568065 | 3577254* | 523 | 290 | | 245 | 45 |
| C 01310 | | C | ED | 1 | 3 | 2 | 11 | 23S | 26E | 569409 | 3576366* | 1275 | 250 | | 220 | 30 |
| C 01548 | | C | ED | 3 | 2 | 11 | 23S | 26E | | 569510 | 3576267* | 1403 | 250 | | | |
| C 01635 | | C | ED | 3 | 2 | 11 | 23S | 26E | | 569510 | 3576267* | 1403 | 255 | | 205 | 50 |
| C 01708 | | C | ED | 3 | 2 | 11 | 23S | 26E | | 569510 | 3576267* | 1403 | 275 | | 236 | 39 |
| C 01843 | | C | ED | 3 | 2 | 11 | 23S | 26E | | 569510 | 3576267* | 1403 | 252 | | 217 | 35 |
| C 02153 | | C | ED | 1 | 4 | 2 | 11 | 23S | 26E | 569818 | 3576371* | 1669 | 275 | | 200 | 75 |
| C 01866 | | C | ED | 2 | 4 | 2 | 11 | 23S | 26E | 570018 | 3576371* | 1864 | 245 | | 212 | 33 |

Average Depth to Water: **222 feet**

Minimum Depth: **200 feet**

Maximum Depth: **248 feet**

Record Count: 10

UTM NAD83 Radius Search (in meters):

Easting (X): 568191.34

Northing (Y): 3576746.39

Radius: 2000

*UTM location was derived from PLSS - see Help

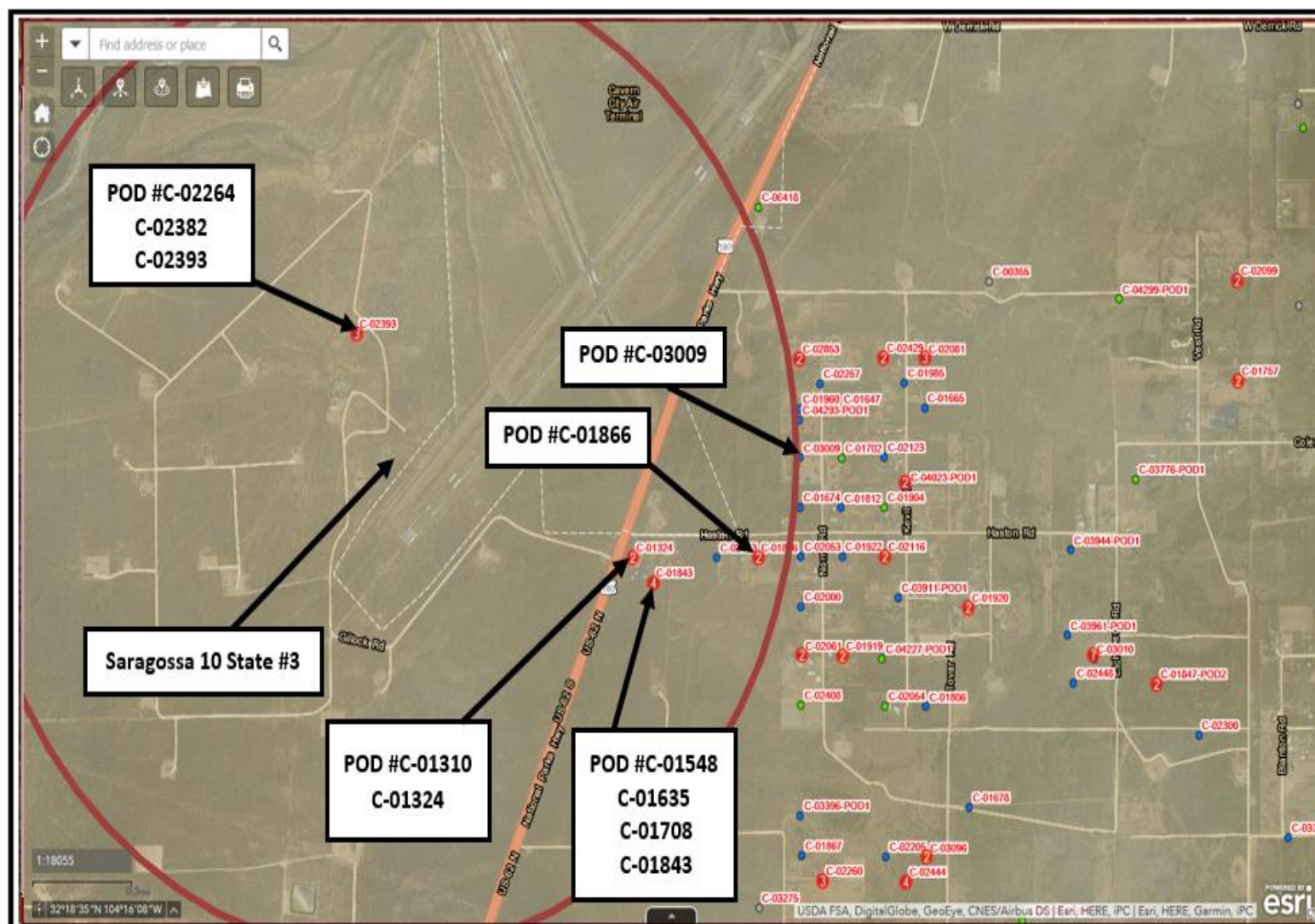
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/16/19 9:00 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

Attachment #5

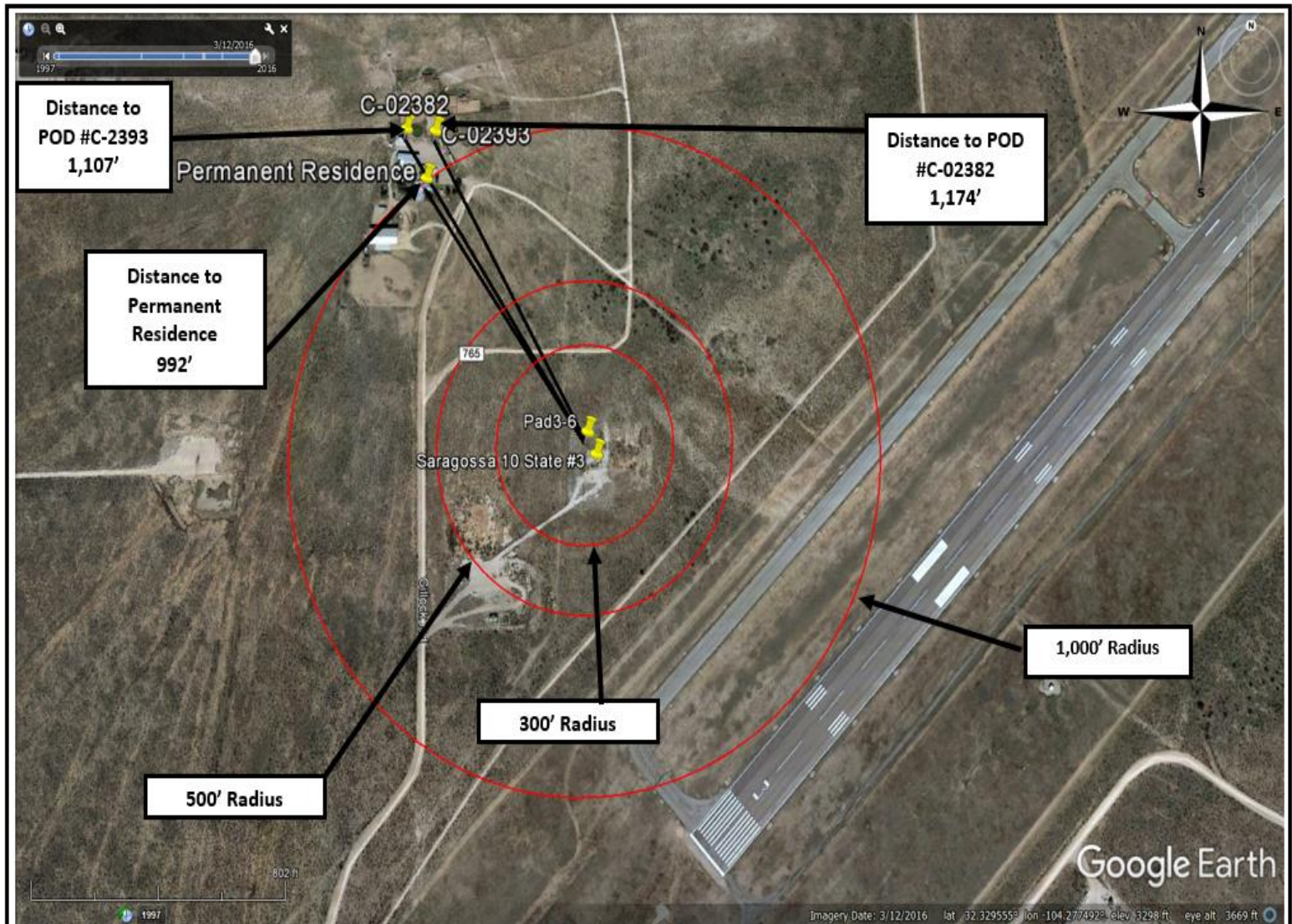
Pod Locations



| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <p>Read & Stevens Inc.</p> <p>Saragossa 10 State #3</p> <p>A-10-23S-26E (330FNL & 990FEL)</p> <p>GPS Lat: 32.325620 Lon:-104.275518</p> | <p>Republic Backhoe Service, LLC</p> <p>47 E. Dickens Rd.</p> <p>Lovington, NM 88260</p> | <p>NMOSE Nearest Pod Locations within 2,000 Meters</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------|

Attachment #6

Northern Extent to Nearest Water Well



Read & Stevens Inc.

Saragossa 10 State #3

A-10-23S-26E (330FNL & 990FEL)

GPS Lat: 32.325620 Lon:-104.275518

Republic Backhoe Service, LLC

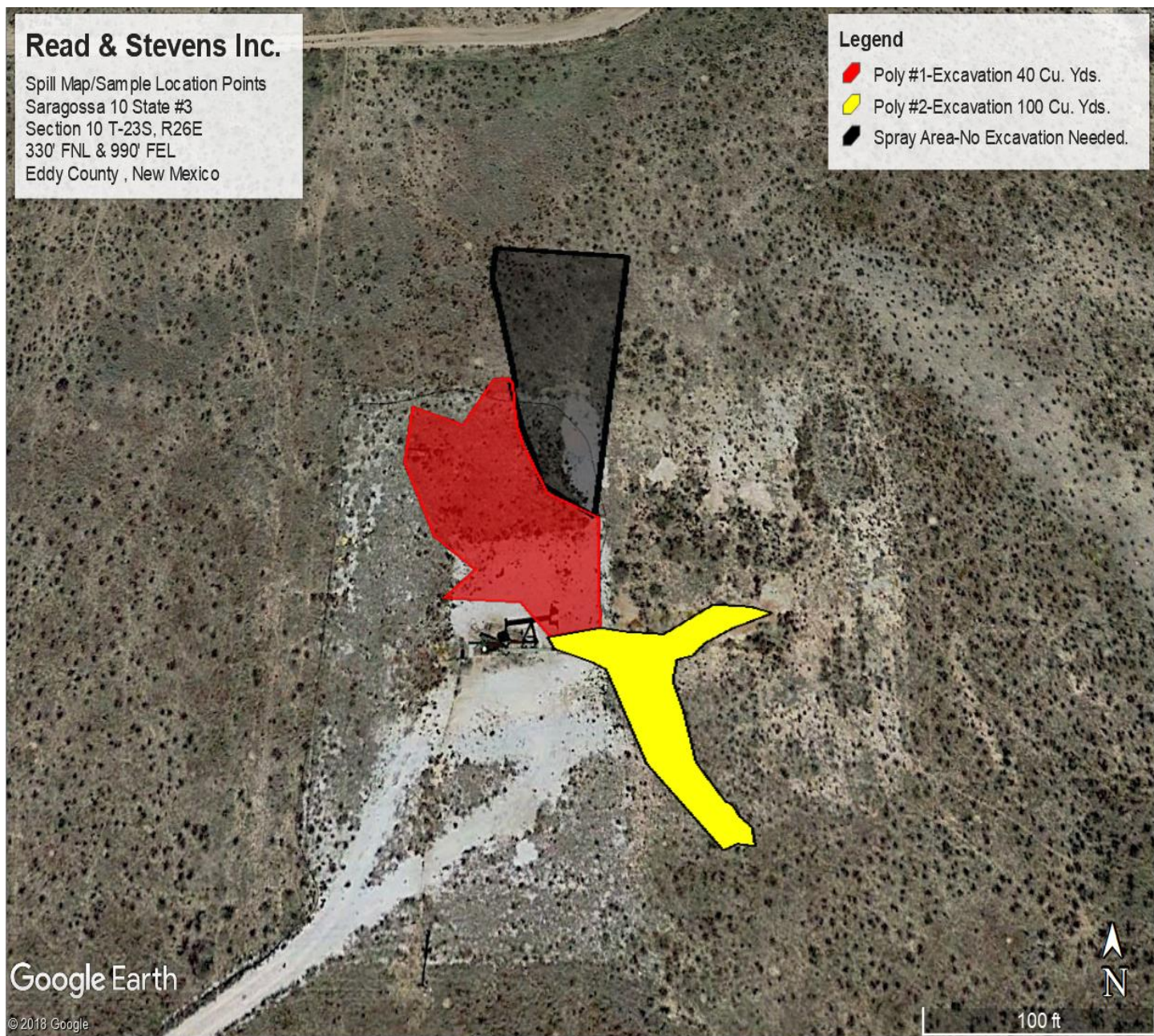
47 E. Dickens Rd.

Lovington, NM 88260

Water Wells and Permanent Residence Distance to
North Extent of the Spill

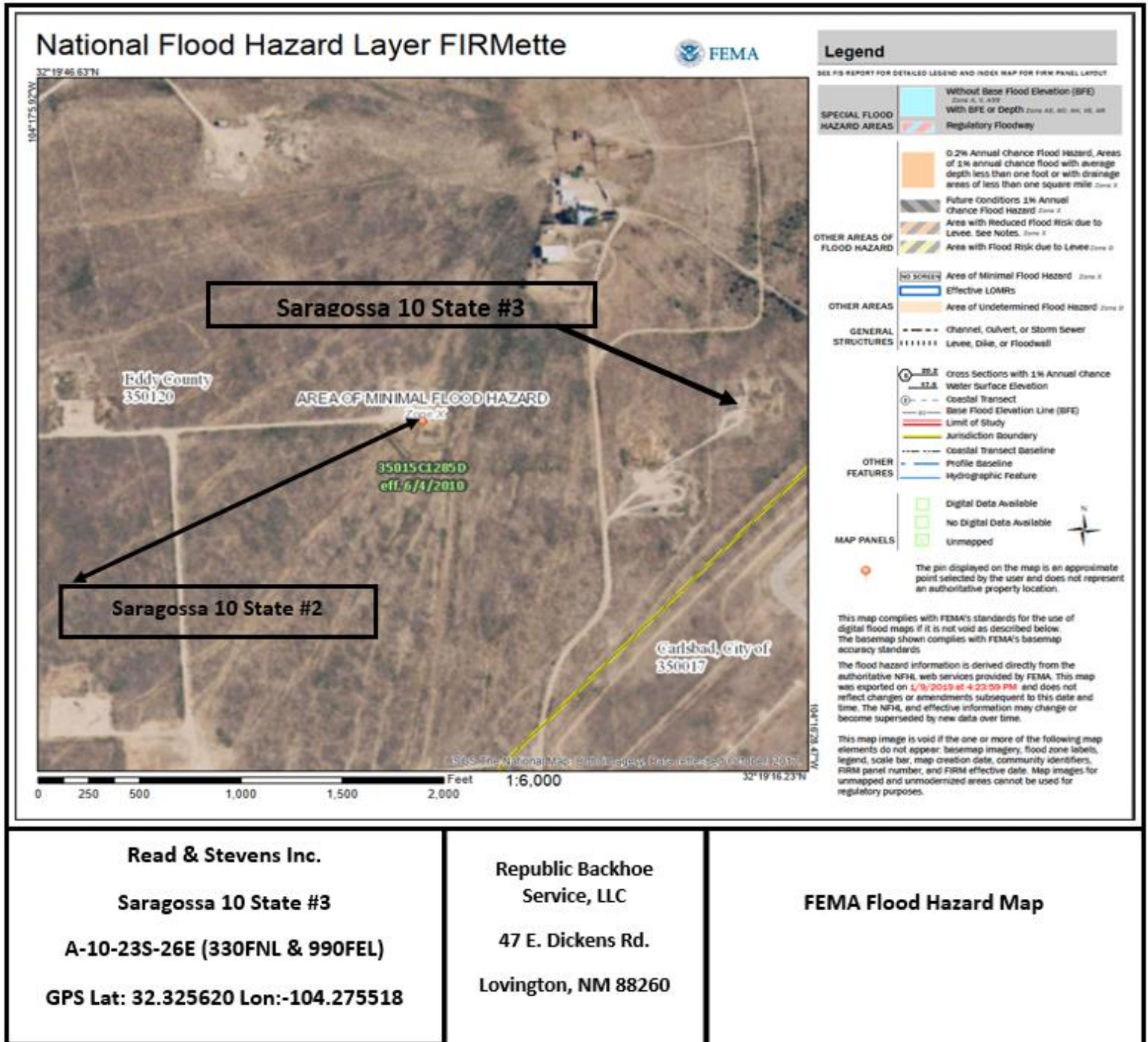
Attachment #7

Excavation Map



Attachment #8

Floodplain Map



Attachment #9

Soil Description

| Description | USCS | Porosity [-] | | | Reference |
|---------------------------------------------------------------------|---------|--------------|------|----------------|----------------|
| | | min | max | Specific value | |
| Well graded gravel, sandy gravel, with little or no fines | GW | 0.21 | 0.32 | | [1]. |
| Poorly graded gravel, sandy gravel, with little or no fines | GP | 0.21 | 0.32 | | [1]. |
| Silty gravels, silty sandy gravels | GM | 0.15 | 0.22 | | [1]. |
| Gravel | (GW-GP) | 0.23 | 0.38 | | [2]. |
| Clayey gravels, clayey sandy gravels | GC | 0.17 | 0.27 | | [1]. |
| Glacial till, very mixed grained | (GC) | - | - | 0.20 | [4 cited in 5] |
| Well graded sands, gravelly sands, with little or no fines | SW | 0.22 | 0.42 | | [1]. [2]. |
| Coarse sand | (SW) | 0.26 | 0.43 | | [2]. |
| Fine sand | (SW) | 0.29 | 0.46 | | [2]. |
| Poorly graded sands, gravelly sands, with little or no fines | SP | 0.23 | 0.43 | | [1]. [2]. |
| Silty sands | SM | 0.25 | 0.49 | | [1]. [2]. |
| Clayey sands | SC | 0.15 | 0.37 | | [1]. |
| Inorganic silts, silty or clayey fine sands, with slight plasticity | ML | 0.21 | 0.56 | | [1]. |
| Uniform inorganic silt | (ML) | 0.29 | 0.52 | | [3]. |
| Inorganic clays, silty clays, sandy clays of low plasticity | CL | 0.29 | 0.41 | | [1]. |
| Organic silts and organic silty clays of low plasticity | OL | 0.42 | 0.68 | | [1]. [3]. |
| Silty or sandy clay | (CL-OL) | 0.20 | 0.64 | | [3]. |
| Inorganic silts of high plasticity | MH | 0.53 | 0.68 | | [1]. |
| Inorganic clays of high plasticity | CH | 0.39 | 0.59 | | [1]. |
| Soft glacial clay | - | - | - | 0.55 | [4 cited in 5] |
| Stiff glacial clay | - | - | - | 0.38 | [4 cited in 5] |
| Organic clays of high plasticity | OH | 0.50 | 0.75 | | [1]. [3]. |
| Soft slightly organic clay | (OH-OL) | - | - | 0.66 | [4 cited in 5] |
| Peat and other highly organic soils | Pt | - | - | | [4 cited in 5] |
| soft very organic clay | (Pt) | - | - | 0.75 | [4 cited in 5] |

REFERENCES

1. Swiss Standard SN 670 010b, Characteristic Coefficients of soils, Association of Swiss Road and Traffic Engineers
2. Das, B., Advanced Soil Mechanics. Taylor & Francis, London & New York, 2008.
3. Hough, B., Basic soil engineering. Ronald Press Company, New York, 1969.
4. Terzaghi, K., Peck, R., and Mesri, G., Soil Mechanics in Engineering Practice. Wiley, New York, 1996.
5. Obrzud R. & Truty, A. THE HARDENING SOIL MODEL - A PRACTICAL GUIDEBOOK Z Soil.PC 100701 report, revised 31.01.2012

Citation :
Geotechdata.info, Soil void ratio, <http://geotechdata.info/parameter/soil-void-ratio.html> (as of November 16, 2013).

Attachment #10
Spill Calculations

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of Spill: Saragossa 10 State #3

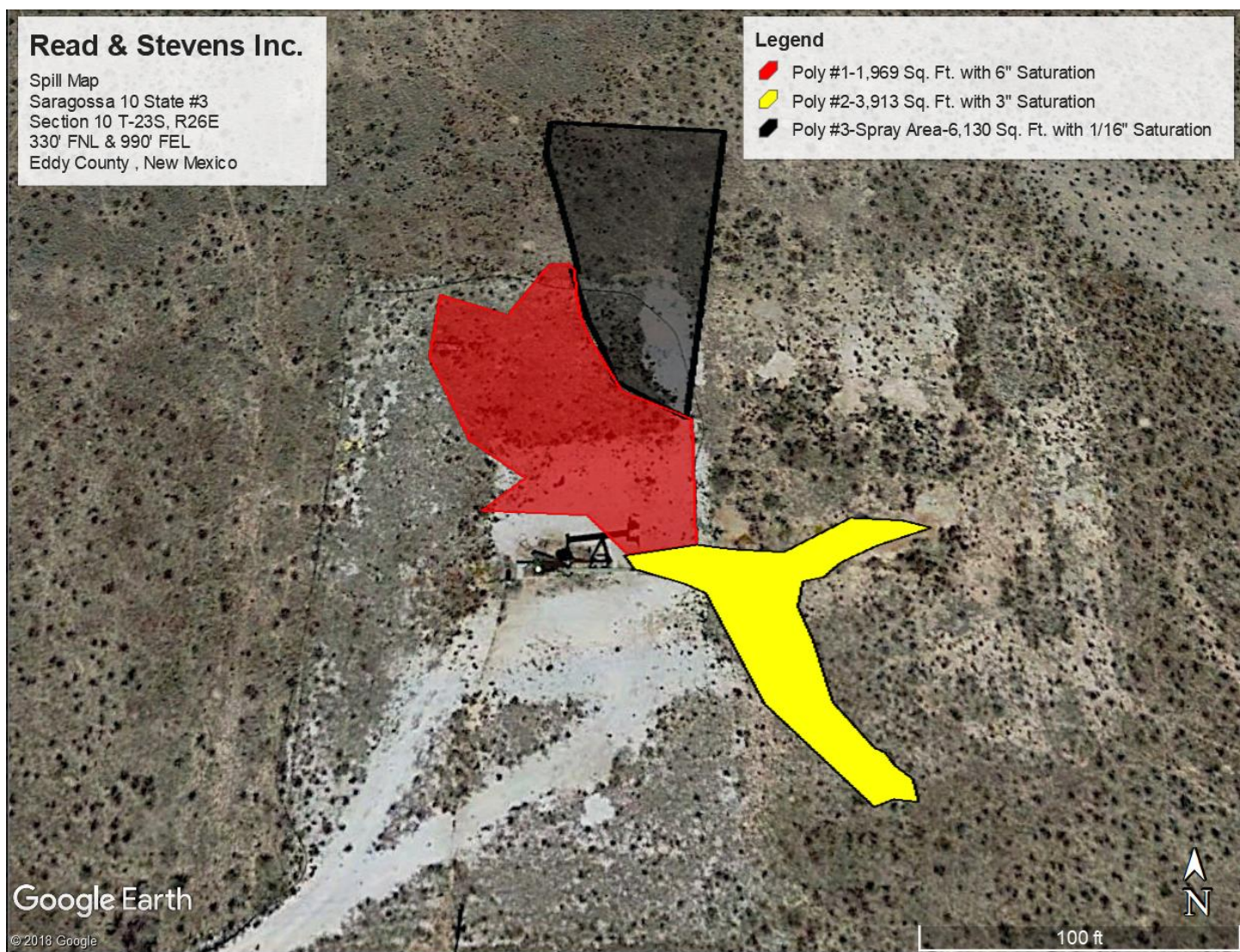
Date of Spill: 10/26/2018

Site Soil Type: Sandy Loam & Caliche

Average Daily Production: 3.5 BBL Oil 43.6 BBL Water

| Total Area Calculations | | | | | | |
|--------------------------------------------|--------|--------|-------------------|---------|-------------------|-----------|
| Total Surface Area | Width | Length | Wet Soil Depth | Oil (%) | Soil Class. | Porosity% |
| Polygon #1 | 1,969 | | 6" | 7 | GM | 0.15 |
| Polygon #2 | 3,913 | | 3" | 7 | GM | 0.15 |
| Polygon #3 | 6,130 | | 1/16" | 93 | GM/ML | 0.18 |
| Saturated Soil Volume calculations: | | | H2O | | OIL | |
| Polygon #1 | 984.50 | | 24.46 | | 1.84 | |
| Polygon #2 | 978 | | 24.30 | | 1.83 | |
| Polygon #3 | 383.13 | | 0.86 | | 11.42 | |
| Total Solid/ Liquid Volume: | | | | | | |
| <u>Estimated Volumes Spilled</u> | | | <u>H2O</u> | | <u>OIL</u> | |
| | | | 49.62 | | 15.09 | |
| Liquid Recovered: | | | 0 | | 0 | |
| Total Spill Liquid: | | | 64.71 | | | |

Attachment 11
Spill Calculation Map



Attachment 12

C-141 Form

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Release Notification

Responsible Party

| | | | |
|-------------------------|--------------------------------|------------------------------|----------------|
| Responsible Party | Read & Stevens Inc. | OGRID | 18917 |
| Contact Name | Joe Tovar | Contact Telephone | (575) 390-2425 |
| Contact email | Jtovar@read-stevens.com | Incident # (assigned by OCD) | |
| Contact mailing address | P.O.Box 1518 Roswell, NM 88202 | | |

Location of Release Source

Latitude 32.325600 Longitude -104.275502
(NAD 83 in decimal degrees to 5 decimal places)

| | | | |
|-------------------------|-------------------------|----------------------|--------------|
| Site Name | Saragossa 10 State #003 | Site Type | Oil Well |
| Date Release Discovered | 10/27/2018 | API# (if applicable) | 30-015-34831 |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
| A | 10 | 23S | 26E | Eddy |

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

| | | |
|----------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Crude Oil | Volume Released (bbls) <u>15.09</u> | Volume Recovered (bbls) <u>0</u> |
| <input checked="" type="checkbox"/> Produced Water | Volume Released (bbls) <u>49.62</u> | Volume Recovered (bbls) |
| | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> Condensate | Volume Released (bbls) | Volume Recovered (bbls) |
| <input type="checkbox"/> Natural Gas | Volume Released (Mcf) | Volume Recovered (Mcf) |
| <input type="checkbox"/> Other (describe) | Volume/Weight Released (provide units) | Volume/Weight Recovered (provide units) |

Cause of Release

The release was attributed to a blown packing at the well head. The well was repacked and put back into operation.

Form C-141

Page 2

State of New Mexico
Oil Conservation Division

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Was this a major release as defined by 19.15.29.7(A) NMAC?

☒ Yes ☐ No

If YES, for what reason(s) does the responsible party consider this a major release?

The release was more than 25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.


If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Joe Tovar

Title: Manager, Production & Operations

Signature: 

Date: 1/16/2019

email: jtovar@read-stevens.com

Telephone: (575) 390-2425

OCD Only

Received by: _____ Date: _____

Form C-141

Page 3

State of New Mexico
Oil Conservation Division

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Site Assessment/Characterization*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| What is the shallowest depth to groundwater beneath the area affected by the release? | 222 (ft bgs) |
| Did this release impact groundwater or surface water? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a wetland? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying a subsurface mine? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within a 100-year floodplain? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Did the release impact areas not on an exploration, development, production, or storage site? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within 1/4-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.


Form C-141

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State of New Mexico
Oil Conservation Division

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Joe Tovar Title: Manager, Production & Operations
Signature:  Date: 1/16/2019
email: jtovar@read-stevens.com Telephone: (575) 390-2425

OCD Only

Received by: _____ Date: _____

Form C-141

Page 5

State of New Mexico
Oil Conservation Division

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Joe TovarTitle: Manager, Production & OperationsSignature: Date: 1/16/2019email: jtovar@read-stevens.comTelephone: (575) 390-2425**OCD Only**

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____

Date: _____

Attachment #13

Laboratory Analysis



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

November 29, 2018

ERIC GARCIA

REPUBLIC BACKHOE SERVICES

47 E. DICKENS RD

LOVINGTON, NM 88260

RE: SARAGOSSA 10 ST. #3

Enclosed are the results of analyses for samples received by the laboratory on 11/21/18 11:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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.

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



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 7 SURFACE (H803424-01)

| BTEX 80218 | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 104 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1040 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
| S-04 | | | | | | | | | |

Surrogate: 1-Chlorooctane 96.3 % 41-142

Surrogate: 1-Chlorooctadecane 239 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Page 2 of 29



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 1-5 (H803424-02)

| BTX 8021B | | | mg/kg | | Analyzed By: ms | | | | |
|----------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 73.3-129

| Chloride, SM4500Cl-B | | | mg/kg | | Analyzed By: AC | | | | |
|----------------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 320 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | | mg/kg | | Analyzed By: MS | | | | |
|------------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 86.2 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | 43.1 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 97.3 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Page 3 of 29



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 1-2 (H803424-03)

| BTX 80218 | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |

| TPH 8015M | mg/kg | | Analyzed By: MS | | | | | | |
|------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 161 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | 34.9 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 90.9 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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*=Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 1 SURFACE (H803424-04)

| BTEX 80218 | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.500 | 0.500 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.500 | 0.500 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.500 | 0.500 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | 2.91 | 1.50 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <3.00 | 3.00 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 5520 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | mg/kg | | Analyzed By: MS | | | | | S-04 | |
|------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | 136 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 6270 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | 1060 | 10.0 | 11/27/2018 | ND | | | | | |


Surrogate: 1-Chlorooctane 113 % 41-142

Surrogate: 1-Chlorooctadecane 257 % 37.6-147

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Caley D. Keene, Lab Director/Quality Manager

Page 5 of 29



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 2 SURFACE (H803424-05)

| BTEX 8021B | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 100 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 26000 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
| | | | | S-06 | | | | | |

| TPH 8015M | mg/kg | | Analyzed By: MS | | | | | 5-06 | |
|------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <50.0 | 50.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 11100 | 50.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | 2750 | 50.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 93.9 % 41-142

Surrogate: 1-Chlorooctadecane 483 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 2 - 5 (H803424-06)

| BTEX 80218 | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 768 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 65.2 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | 38.7 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 88.2 % 41-142

Surrogate: 1-Chlorooctadecane 96.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 2 - 2 (H803424-07)

| BTEX 80218 | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 9000 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | <10.0 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 88.9 % 41-142

Surrogate: 1-Chlorooctadecane 95.9 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 7 - 2 (H803424-08)

| BTEX 80218 | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 114 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | <10.0 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 88.5 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 3 SURFACE (H803424-09)

| BTEX 8021B | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | 0.051 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | 0.112 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | 1.83 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | 2.00 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 121 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 26800 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | 159 | 100 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 59800 | 100 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | 13600 | 100 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 113 % 41-142

Surrogate: 1-Chlorooctadecane 2120 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 3 - 2 (H803424-10)

| BTEX 8021B | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 73.3-129

| 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 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |

| TPH 8015M | mg/kg | | Analyzed By: MS | | | | | | |
|------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 124 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | 57.7 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 82.3 % 41-142

Surrogate: 1-Chlorooctadecane 89.0 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 3 - 5 (H803424-11)

| BTEX 8021B | | mg/kg | | Analyzed By: ms | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.81 | 90.3 | 2.00 | 1.18 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.75 | 87.3 | 2.00 | 0.834 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.69 | 84.7 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.50 | 91.6 | 6.00 | 0.691 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 120 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 96.0 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |

| TPH 8015M | mg/kg | | Analyzed By: MS | | | | | | |
|------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | 78.0 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 87.4 % 41-142

Surrogate: 1-Chlorooctadecane 93.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 7 - 5 (H803424-12)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PII) 99.4 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 214 | 107 | 200 | 7.11 | |
| DRO >C10-C28* | <10.0 | 10.0 | 11/27/2018 | ND | 222 | 111 | 200 | 7.24 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 81.1 % 41-142

Surrogate: 1-Chlorooctadecane 86.5 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 8 - 5 (H803424-13)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 99.7 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/28/2018 | ND | 212 | 106 | 200 | 5.81 | |
| DRO >C10-C28* | <10.0 | 10.0 | 11/28/2018 | ND | 215 | 107 | 200 | 4.06 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/28/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 72.3 % 41-142

Surrogate: 1-Chlorooctadecane 79.4 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 4 - 5 (H803424-14)

| BTX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 97.9 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 96.0 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: M5 | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/28/2018 | ND | 212 | 106 | 200 | 5.81 | |
| DRO >C10-C28* | 56.1 | 10.0 | 11/28/2018 | ND | 215 | 107 | 200 | 4.06 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/28/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 86.2 % 41-142

Surrogate: 1-Chlorooctadecane 94.9 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 4-2 (H803424-15)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 100 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/28/2018 | ND | 212 | 106 | 200 | 5.81 | |
| DRO >C10-C28* | 102 | 10.0 | 11/28/2018 | ND | 215 | 107 | 200 | 4.06 | |
| EXT DRO >C28-C36 | 14.7 | 10.0 | 11/28/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 88.0 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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* = Accredited Analyte

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 4 - SURFACE (H803424-16)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | 5-04 | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | 0.106 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | 5.07 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | 5.18 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 150 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | 5-06 | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 18800 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | 5-06 | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | 435 | 100 | 11/28/2018 | ND | 212 | 106 | 200 | 5.81 | |
| DRO >C10-C28* | 47200 | 100 | 11/28/2018 | ND | 215 | 107 | 200 | 4.06 | |
| EXT DRO >C28-C36 | 9460 | 100 | 11/28/2018 | ND | | | | | |


Surrogate: 1-Chlorooctane 189 % 41-142

Surrogate: 1-Chlorooctadecane 1410 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 5- SURFACE (H803424-17)

| BTX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | 0.090 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 95.5 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 20800 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |
| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <100 | 100 | 11/28/2018 | ND | 212 | 106 | 200 | 5.81 | |
| DRO >C10-C28* | 58100 | 100 | 11/28/2018 | ND | 215 | 107 | 200 | 4.06 | |
| EXT DRO >C28-C36 | 15300 | 100 | 11/28/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 86.0 % 41-142

Surrogate: 1-Chlorooctadecane 2160 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 5-2 (H803424-18)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PII) 98.4 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 256 | 16.0 | 11/28/2018 | ND | 400 | 100 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/28/2018 | ND | 212 | 106 | 200 | 5.81 | |
| DRO >C10-C28* | 181 | 10.0 | 11/28/2018 | ND | 215 | 107 | 200 | 4.06 | |
| EXT DRO >C28-C36 | 107 | 10.0 | 11/28/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 84.8 % 41-142

Surrogate: 1-Chlorooctadecane 95.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 5-5 (H803424-19)

| BTX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 94.4 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 11/28/2018 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/28/2018 | ND | 212 | 106 | 200 | 5.81 | |
| DRO >C10-C28* | 23.2 | 10.0 | 11/28/2018 | ND | 215 | 107 | 200 | 4.06 | |
| EXT DRO >C28-C36 | 16.8 | 10.0 | 11/28/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 95.6 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 8-2 (H803424-20)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 97.4 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 11/28/2018 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRD C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 215 | 107 | 200 | 8.45 | |
| DRO >C10-C28* | <10.0 | 10.0 | 11/27/2018 | ND | 227 | 114 | 200 | 1.21 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 77.8 % 41-142

Surrogate: 1-Chlorooctadecane 79.0 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 8 - SURFACE (H803424-21)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 94.7 % 73.3-129

| 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 | 11/28/2018 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 215 | 107 | 200 | 8.45 | |
| DRO >C10-C28* | 95.6 | 10.0 | 11/27/2018 | ND | 227 | 114 | 200 | 1.21 | |
| EXT DRO >C28-C36 | 40.4 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 87.5 % 41-142

Surrogate: 1-Chlorooctadecane 96.7 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Coley D. Keene, Lab Director/Quality Manager

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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 6-5 (H803424-22)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 95.1 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 128 | 16.0 | 11/28/2018 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 215 | 107 | 200 | 8.45 | |
| DRO >C10-C28* | <10.0 | 10.0 | 11/27/2018 | ND | 227 | 114 | 200 | 1.21 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 87.6 % 41-142

Surrogate: 1-Chlorooctadecane 91.9 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 6-2 (H803424-23)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 97.0 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 528 | 16.0 | 11/28/2018 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 11/27/2018 | ND | 215 | 107 | 200 | 8.45 | |
| DRO >C10-C28* | <10.0 | 10.0 | 11/27/2018 | ND | 227 | 114 | 200 | 1.21 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 89.5 % 41-142

Surrogate: 1-Chlorooctadecane 93.8 % 37.6-147

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* = Accredited Analyte

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/21/2018
Reported: 11/29/2018
Project Name: SARAGOSSA 10 ST. #3
Project Number: NONE GIVEN
Project Location: READ & STEVENS- CARLSBAD NM

Sampling Date: 11/16/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: PAD 3 - 6 - SURFACE (H803424-24)

| BTEX 80218 | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.83 | 91.3 | 2.00 | 0.0710 | |
| Toluene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.78 | 89.1 | 2.00 | 0.920 | |
| Ethylbenzene* | <0.050 | 0.050 | 11/28/2018 | ND | 1.72 | 86.2 | 2.00 | 1.08 | |
| Total Xylenes* | <0.150 | 0.150 | 11/28/2018 | ND | 5.07 | 84.4 | 6.00 | 0.833 | |
| Total BTEX | <0.300 | 0.300 | 11/28/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PIL) 98.4 % 73.3-129

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 21600 | 16.0 | 11/28/2018 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <100 | 100 | 11/27/2018 | ND | 215 | 107 | 200 | 8.45 | |
| DRO >C10-C28* | 59500 | 100 | 11/27/2018 | ND | 227 | 114 | 200 | 1.21 | |
| EXT DRO >C28-C36 | 12800 | 100 | 11/27/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 78.6 % 41-142

Surrogate: 1-Chlorooctadecane 1640 % 37.6-147

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Notes and Definitions

| | |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| S-06 | The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's. |
| S-04 | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. |
| 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 SM4500C-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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

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101 East Marland, Hobbs, NM 88240
(575) 383-2326 FAX (575) 393-2476

[illegible]



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Company Name: Republic Bochner Service Project Manager: Eric Garcia Address: 47 E Dickens Rd City: Lovington State: NM Zip: 88060 Phone #: 575-631-0131 Fax #: Project #: Project Name: Saratoga 10 State #3 Project Location: Cartbad Sampler Name: Eric Garcia | | P.O. #: Company: Reed + Stevens Attn: Joe Lora Address: PO Box 1518 City: Roswell State: NM Zip: 88002 Phone #: 575-622-5770 Fax #: 575-622-8643 | |
| Lab I.D.: H03424 Sample I.D.: 21 PAD 3-8-Surface 22 PAD 3-6-5 23 PAD 3-6-8 24 PAD 3-6-Surface | | MATRIX: <input type="checkbox"/> G/RAB OR (C)OMP. <input type="checkbox"/> # CONTAINERS <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE <input type="checkbox"/> OTHER: <input type="checkbox"/> ACID/BASE <input type="checkbox"/> ICE / COOL <input type="checkbox"/> OTHER: | |
| DATE TIME 11/16/18 12:30 11/16/18 11:45 11/16/18 11:35 11/16/18 11:25 11/16/18 11/16/18 11/16/18 11/16/18 11/16/18 11/16/18 | | ANALYSIS REQUEST TPH BTEX Chloride | |
| Relinquished By: Eric Garcia Date: 11-21-18 Relinquished By: Eric Garcia Date: 11-25 Time: | | Received By: Joe Lora Date: 11-25 Time: | |
| Delivered By: (Circle One) Sampler - UPS - Bus - Other: 3.52 Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Checked By: Joe | | Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS: | |

* Cardinal cannot accept verbal phone orders. Please fax written requests to (575) 393-2476

Page 3 of 2

Photos



























Form C-141

Page 5

State of New Mexico
Oil Conservation Division

| | |
|----------------|---------------|
| Incident ID | NAB1912055185 |
| District RP | 2RP-5381 |
| Facility ID | |
| Application ID | pAB1912054805 |


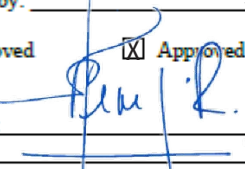
Remediation Plan**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Joe TovarTitle: Manager, Production & OperationsSignature: Date: 1/16/2019email: jtovar@read-stevens.comTelephone: (575) 390-2425**OCD Only**Received by: Victoria VenegasDate: 05/09/2019☐ Approved☒ Approved with Attached Conditions of Approval☐ Denied☐ Deferral ApprovedSignature: Date: 05/14/2019

OCD approve this work plan with the following:

- While OCD would prefer to see more delineation sample points, we will approve this work plan with the understanding that the entire impacted area (Poly#1/Poly#2) will be excavated to 2 feet. *Less than 2'* is not sufficient nor adequate.
- Five points confirmation samples will be taken per NMOCD spill rule 19.15.29.12.D.
- Confirmation samples must meet the NMOCD closure criteria for this site.

Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Tuesday, May 14, 2019 1:51 PM
To: eric garcia; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD
Cc: jtovar@read-stevens.com; Mann, Ryan
Subject: RE: Read & Stevens Inc. Saragossa 10 State #3
Attachments: 5. C-141 Site Assessment_Remediation Plan Approval 5.13.19.pdf

Read & Stevens Inc. Saragossa 10 State #3

Mr. Garcia,

OCD has received your Site Assessment/Soil Remediation Plan for **2RP-5381 Saragossa 10 St #3**, thank you. OCD approve this work plan with the following:

- While OCD would prefer to see more delineation sample points, we will approve this work plan with the understanding that the entire impacted area (Poly#1/Poly#2) will be excavated to 2 feet. "Less than 2" is not sufficient nor adequate.
- Five points confirmation samples will be taken per NMOCD spill rule 19.15.29.12.D.
- Confirmation samples must meet the NMOCD closure criteria for this site.

Please, let me know if you have any questions or concerns.

Thank you,

Victoria Venegas
EMNRD
OCD-District II
811 S First St. Artesia
NM 88210
Victoria.Venegas@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

From: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Sent: Thursday, May 9, 2019 11:49 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>
Subject: FW: Read & Stevens Inc. Saragossa 10 State #3

This is #2 of 2 – **2RP-5381**. NOTE: the attachment that says Final C-141 is not the final C-141

Thanks - mb

From: eric garcia <ericgarcia62@hotmail.com>
Sent: Tuesday, April 30, 2019 10:45 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXT] Fw: Read & Stevens Inc. Saragossa 10 State #3

Eric Garcia
President
Republic Backhoe Service LLC
47 E. Dickens RD
Lovington, NM 88260
Cell: 575-631-0131
Email: ericgarcia62@hotmail.com

From: eric garcia
Sent: Wednesday, February 13, 2019 12:47 PM
To: mike.bratcher@state.nm.us
Subject: Read & Stevens Inc. Saragossa 10 State #3

Mr. Bratcher,

The following attachments contain the C-141, Spill Calculations, Site Assessment, and Work Plan for Read & Stevens Inc. Saragossa 10 State #3 release.

Eric Garcia
President
Republic Backhoe Service LLC
47 E. Dickens RD
Lovington, NM 88260
Cell: 575-631-0131
Email: ericgarcia62@hotmail.com

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 387222

CONDITIONS

| | |
|-----------------------------------------------------------------------------|------------------------------------------------------------------|
| Operator: 3R Operating, LLC 4000 N BIG SPRING ST Midland, TX 79705 | OGRID: 331569 |
| | Action Number: 387222 |
| | Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|-----------------------------|----------------|
| amaxwell | Historical document upload. | 9/26/2024 |