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-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office. For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

### Pit, Below-Grade Tank, or

Proposed Alternative Method Permit or C	Closure Plan Application
Type of action:  Below grade tank registration  Permit of a pit or proposed alternative method	
Closure of a pit, below-grade tank, or propos  Modification to an existing permit/or registra	
	permitted or non-permitted pit, below-grade tank,
or proposed alternative method	, , , , , , , , , , , , , , , , , , , ,
Instructions: Please submit one application (Form C-144) per individue	al pit, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should oper- environment. Nor does approval relieve the operator of its responsibility to comply with any other	
Operator: _Kinder Morgan CO2 Company, L.P OC	GRID #:34945
Address:17801 U.S. Highway 491, Cortez, Colorado 81321	
Facility or well name:CC14	
API Number:30-003-20041 OCD Permit Num	mber:
U/L or Qtr/QtrD Section27 Township1N Range21'	W County:Catron
Center of Proposed Design: Latitude34° 17' 12.62" Longitude	109° 01' 55.00" NAD: ⊠1927 □ 1983
Surface Owner:  Federal State Private Tribal Trust or Indian Allotment	
2.	
∑ <u>Pit</u> : Subsection F, G or J of 19.15.17.11 NMAC	
Temporary: ⊠ Drilling □ Workover	
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management	Low Chloride Drilling Fluid ☐ ves ☒ no
\int \text{Lined}	
☐ String-Reinforced	
Liner Seams: Welded Factory Other Volume:	2.140 bbl Dimensions: I 100' x W 15' x D 12'
Zimer Beams. Zi Welder Zi Taetery Zi Gimer Zi Gim	
3.	
Below-grade tank: Subsection I of 19.15.17.11 NMAC	
Volume:bbl Type of fluid:	
Tank Construction material:	
Secondary containment with leak detection   Visible sidewalls, liner, 6-inch lift and	automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other	
Liner type: Thicknessmil	
4.	
Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa F	e Environmental Bureau office for consideration of approval.
5.	
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, a	
Chain link, six feet in height, two strands of barbed wire at top ( <i>Required if located with institution or church</i> )	in 1000 feet of a permanent residence, school, hospital,
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify	

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)	
5.  Signs: Subsection C of 19.15.17.11 NMAC  ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  ☐ Signed in compliance with 19.15.16.8 NMAC	
<ul> <li>8.</li> <li>Variances and Exceptions:</li> <li>Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.</li> <li>Please check a box if one or more of the following is requested, if not leave blank:         <ul> <li>□ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.</li> <li>□ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.</li> </ul> </li> </ul>	
9. Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	otable source
General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.  -   NM Office of the State Engineer - iWATERS database search;  USGS;  Data obtained from nearby wells	☐ Yes ⊠ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.  NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☑ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. ( <b>Does not apply to below grade tanks</b> )  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ⊠ No
Within the area overlying a subsurface mine. ( <b>Does not apply to below grade tanks</b> ) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ⊠ No
Within an unstable area. ( <b>Does not apply to below grade tanks</b> )  - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ⊠ No
Within a 100-year floodplain. ( <b>Does not apply to below grade tanks</b> ) - FEMA map	☐ Yes ⊠ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No

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12.  Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the description.	documents are
### Author of Paragraph (1) of Subsection B of 19.15.17.9 NMAC    Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC    Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC    Climatological Factors Assessment    Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC    Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC    Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC    Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC    Quality Control/Quality Assurance Construction and Installation Plan    Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC    Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC    Nuisance or Hazardous Odors, including H₂S, Prevention Plan    Emergency Response Plan    Oil Field Waste Stream Characterization    Monitoring and Inspection Plan    Erosion Control Plan    Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well Fl	uid Management Pit
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method	uid ivianagement i it
14. Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a	attached to the
closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. P 19.15.17.10 NMAC for guidance.	
Ground water is less than 25 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☑ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☑ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	⊠ Yes □ No □ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ⊠ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ⊠ No
Within 300 feet of a wetland.	
US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

Witten confirmation or verification from the numicipality; Written approval obtained from the municipality  Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Resources; USGS; NM Geological Scociety; Topographic map  Writtin a unstable area. Panjineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Scociety; Topographic map  Writtin a 100-year flendedplain. FEMA runp	adopted pursuant to NMSA 1978, Section 3-27-3, as amended.	1
Wittin an unstable area.  Fingineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources: USGS; NM Geological Society; Tropographic map within an unstable area.  Fingineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources: USGS; NM Geological Society; Tropographic map within a 100-year floodplain.  FEMA map Within a 100-year floodplain.  FEMA map Tropographic map within the decrements are attached.  Since Charles and the least, that the decrements are attached.  Since Charles and the least, that the decrements are attached.  Since Charles and the least, that the decrements are attached.  Since Charles and the least, that the decrements are attached.  Construction/Useign Plan of Temporary Pit (67 ite-place burid of a drying paid) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Construction/Useign Plan of Temporary Pit (67 ite-place burid of a drying paid) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Construction/Useign Plan of Temporary Pit (67 ite-place burid of a drying paid) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Protuceds and Trocedures - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Water Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC  Water Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC  Solic Cover Design - based upon the appropriate requirements of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection II of 19.15.17.13 NMAC  The composition Plan - based upon the appropriate requirements of Subsection II of 19.15.17.13 NMAC  The composition Plan - based upon the appropriate requirements of Subsection II of 19.15.17.13 NMAC  The composition Plan - based upon the appropriate requirements of Subsection II of 19.15.17.13 NMAC  The composition Plan - based upon the appropriate requirements of Subsec	- Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ⊠ No
Progress and Precedures—based upon the appropriate requirements of Subsection B (19.15.17.13 NMAC)    Sint Construction/Design Plan of Turnit (frapplicable) based upon the appropriate requirements of 19.15.17.13 NMAC   String Chiera Compliance Demonstrations—based upon the appropriate requirements of 19.15.17.13 NMAC   String Chiera Compliance Demonstrations—based upon the appropriate requirements of 19.15.17.13 NMAC   Proof of Surface Owner Notice—based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC   Construction/Design Plan of Turnit Traval (frapplicable) based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC   Construction/Design Plan of Turnit Traval (frapplicable) based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC   Construction/Design Plan of Turnit Traval (frapplicable) based upon the appropriate requirements of 19.15.17.13 NMAC   Construction/Design Plan of Turnit (frapplicable)—based upon the appropriate requirements of 19.15.17.13 NMAC   Protocos and Precedures—based upon the appropriate requirements of 19.15.17.13 NMAC   Since Cover Design based upon the appropriate requirements of 19.15.17.13 NMAC   Since Cover Design based upon the appropriate requirements of 19.15.17.13 NMAC   Since Cover Design based upon the appropriate requirements of Subsection In 19.15.17.13 NMAC   Since Cover Design based upon the appropriate requirements of Subsection In 19.15.17.13 NMAC   Since Recellance Plan - based upon the appropriate requirements of Subsection In 19.15.17.13 NMAC   Since Recellance Plan - based upon the appropriate requirements of Subsection In 19.15.17.13 NMAC   Since Recellance Plan - based upon the appropriate requirements of Subsection In 19.15.17.13 NMAC   Since Recellance Plan - based upon the appropriate requirements of Subsection In 19.15.17.13 NMAC   Since Recellance Plan - based upon the appropriate requirements of Subsection In 19.15.17.13 NMAC   Since Recellance Plan - based upon the appropriate requirements of Subsecti	Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☑ No
Within a 100-year floodplain.    Yes   No     Yes   No	- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS: NM Geological	
Desire Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.	Within a 100-year floodplain.	_
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Piease indicate, by a check mark in the bax, that the bax that the backments are attached.   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.13 NMAC   Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC   Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC   Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC   Confirmation Sampling Plan of Temporary Pit (is ir in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC   Waste Minerial Sumpling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC   Size Cover Design - based upon the appropriate requirements of 19.15.17.13 NMAC   Size Reclamation Plan - based upon the appropriate requirements of 19.15.17.13 NMAC   Size Reclamation Plan - based upon the appropriate requirements of Subsection 11 of 19.15.17.13 NMAC   Size Reclamation Plan - based upon the appropriate requirements of Subsection 11 of 19.15.17.13 NMAC   Size Reclamation Plan - based upon the appropriate requirements of Subsection 11 of 19.15.17.13 NMAC   Size Reclamation Plan - based upon the appropriate requirements of Subsection 11 of 19.15.17.13 NMAC   One of the plan of the properties requirements of Subsection 11 of 19.15.17.13 NMAC   One of the Plan of the plan of the properties requirements of Subsection 11 of 19.15.17.13 NMAC   One of the Plan of the P		☐ Yes ☑ No
OPERATOR Application Certification:  I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.  Name (Print):	On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC  Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot Soil Cover Design - based upon the appropriate requirements of Subsection II of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection II of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection II of 19.15.17.13 NMAC	11 NMAC 15.17.11 NMAC
Name (Print):Michael Hannigan, P.E	Operator Application Certification:	ef.
e-mail address:michael_hannigan@kindermorgan.com Telephone:		
OCD Approval: Permit Application (inclyding closure plan)   Closure Plan (only)   OCD Conditions (see attachment)  OCD Representative Signature:	M 0 0 1 .	
OCD Approval: Permit Application (including closure plan)   Closure Plan (only)   OCD Conditions (see attachment)  OCD Representative Signature:	e-mail address:michael_hunnigan@kindermorgan.com Telephone:(970) 882-5532	
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:  10. Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)  If different from approved plan, please explain.  21. Closure Report Attachment Checklist: Instructions: Each of the following Items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)  Proof of Deed Notice (required for on-site closure for private land only)  Plot Plan (for on-site closures and temporary pits)  Confirmation Sampling Analytical Results (if applicable)  Waste Material Sampling Analytical Results (required for on-site closure)  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)	OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature: Approval Date: 4011	115,2016
Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.    Closure Completion Date:		
Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)  If different from approved plan, please explain.  21.  Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)  Proof of Deed Notice (required for on-site closure for private land only)  Plot Plan (for on-site closures and temporary pits)  Confirmation Sampling Analytical Results (if applicable)  Waste Material Sampling Analytical Results (required for on-site closure)  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)	Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Place do not	the closure report. complete this
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Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed los	pp systems only)
19717. [ 1172/ 1   1983 ]	Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicated in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	

22.	
Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure report belief. I also certify that the closure complies with all applicable closure requirements	
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

## PROTOCOLS AND PROCEDURES ON-SITE CLOSURE OF TEMPORARY DRILLING PITS COTTONWOOD CANYON WELLS CC14 AND CC14X LOCATION CATRON COUNTY, NEW MEXICO

#### **Waste Material Sampling Plan**

Composite samples of waste from the temporary drilling pits at the CC14/CC14X location were collected on February 11, 2016 and submitted for laboratory analysis. Two (2) five point composite samples were collected from each pit. The collection points for each composite sample, designated CC14XS, CC14XN, CC14E and CC14W, are shown in attached Figure 1. The samples were submitted to Green Analytical Laboratories for analysis of Table II 19.15.17.13 NMAC parameters. A summary of the results of analyses, which are shown in the table below, indicate that the concentrations of potential contaminants in the waste samples are below the Table II closure criteria concentrations for burial trenches or waste left in place in temporary pits. The laboratory analytical report is attached.

#### SUMMARY OF DRILLING WASTE ANALYTICAL RESULTS

Sample ID	CC14XS	CC14XN	CC14E	CC14W	Table II 19.15.17.13 NMAC
Sample Collection Date	2/11/2016	2/11/2016	2/11/2016	2/11/2016	Closure Criteria <sup>6</sup>
Chloride (mg/kg) <sup>1</sup>	6,450	2,400	7,940	10,100	80,000
TPH <sup>2</sup> (mg/kg)	911	1,530	1,040	528	2,500
GRO <sup>3</sup> + DRO <sup>4</sup> (mg/kg)	61.1	<20.0	<20.0	<20.0	1,000
BTEX <sup>5</sup> (mg/kg)	1.60	0.975	0.889	0.349	50
Benzene (mg/kg)	<0.050	<0.050	<0.050	<0.050	10

#### Notes:

- 1. Milligrams per kilogram
- 2. Total Petroleum Hydrocarbons
- 3. Gasoline Range Organics
- 4. Diesel Range Organics
- 5. Benzene, Toluene, Ethylbenzene & Xylenes (total)
- 6. Burial Trenches and Waste Left in Place in Temporary Pits (Depth to groundwater >100 feet)

Based on the results of analyses of the waste material in the CC14 and CC14X temporary drilling pits, Kinder Morgan has elected to construct an on-site burial trench for disposal of the waste. The design plan and construction of the burial trench is discussed in the following section of this temporary drilling pit closure plan.

#### **Burial Trench Design Plan and Construction**

The volume of waste material remaining in the CC14 and CC14X pits was calculated by measuring the surface area within the mud line of each pit and multiplying the total area by the average depth of the waste. The surface area of the waste remaining in each pit is 5,390 square feet (ft²) in CC14 and 5,865 ft² in CC14X (11,256 ft² total surface area). The average depth of the waste material in both pits is 1 foot which yields a total volume of waste material to be approximately 11,256 cubic feet (417 cubic yards).

The proposed on-site burial trench will be situated at the base of the existing cut slope on the west side of the well location, as shown in attached Figure 1. The proposed burial trench will have minimum dimensions of 100 feet long by 15 feet wide by 12 feet deep, which will provide a disposal volume of approximately 445 cubic yards for the drilling waste and pit liners from the CC14 and CC14X temporary drilling pits and a minimum 4-foot deep non-waste containing soil cover. Prior to the placement of any waste material, the burial trench will be lined with a string reinforced LLDPE geomembrane having a minimum thickness of 20 mils.

Once the waste material has been stabilized by removing any free liquids (rain water) that may have collected in the pits and ensuring that the material is dry, it will be transferred from the pits to the lined burial trench using a combination of backhoes, loaders and other heavy equipment as needed. After all of the waste material has been transferred from the pits to the lined burial trench, the existing pit liners will be removed from the temporary pits and placed in the burial trench.

After all of the waste and used liner materials have been transferred from the temporary pits to the burial trench, the outer edges of the trench liner will be folded over the materials placed in the trench and a string reinforced LLDPE geomembrane cover having a minimum thickness of 20 mils will be installed in a manner that will prevent the collection of infiltration water in the trench. A non-waste containing soil cover having a minimum thickness of 4 feet will be placed over the geomembrane cover of the burial trench.

After removal of the waste and liner material materials from the temporary pits to the burial trench, soil samples will be collected from beneath the pit liners. A five point composite sample will be collected from the soil beneath the liner of each temporary pit and will include soil from any stained or wet areas observed after removal of the liners. The samples will be submitted to an accredited laboratory for analysis of the constituents listed in Table I of 18.15.17.13 NMAC.

Latitude and longitude coordinates will be obtained from the center points of both of the CC14 and CC14X temporary drilling pits. The recorded coordinates will be reported on the final Form C-144 submitted to the Oil Conservation Division for these pits.

#### Reclamation

After closure of temporary drilling pits CC14 and CC14X, the pit locations, burial trench location and unused portions of the well pad will be reclaimed to a safe and stable condition that blends with the surrounding undisturbed area.

The clean material excavated to construct the on-site burial trench will be used to construct a soil cover over the trench after the drilling waste and pit liners have been transferred. The soil cover will consist of a minimum of four feet of non-waste containing, uncontaminated earthen material with chloride concentrations less than 600 milligrams per kilogram as analyzed by EPA Method 300.0. After the burial trench has been covered, the fill material used to construct the temporary drilling pits will be moved to the west side of the well location where most of it originated. The background thickness of topsoil or one foot (minimum) of suitable material to establish vegetation will be placed as the surface layer of the soil cover in the unused portions of the well pad. The reclaimed area will be maintained to control dust and graded to minimize erosion to the extent practicable.

The well access road will terminate in a teardrop pattern around the wellheads and remain in place until the wells are plugged and abandoned. After the wells are plugged and abandoned, which are tentatively scheduled to take place in or around the month of July 2017, topsoil will be placed over the entire well pad and access road to the site's existing grade. The topsoil will be placed and graded in a manner that will prevent ponding of water and erosion of the cover material. The entire disturbed area of the well location will be reseeded during the first favorable growing season following well plugging and abandonment.

#### Notifications

The surface owner will be notified by certified mail at least 72 hours, but not more than one week, prior to the commencement of any closure operation. The State of New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division District IV office will be notified verbally and in writing at least 72 hours, but not more than one week, prior to the commencement of any closure operation.

#### Reporting

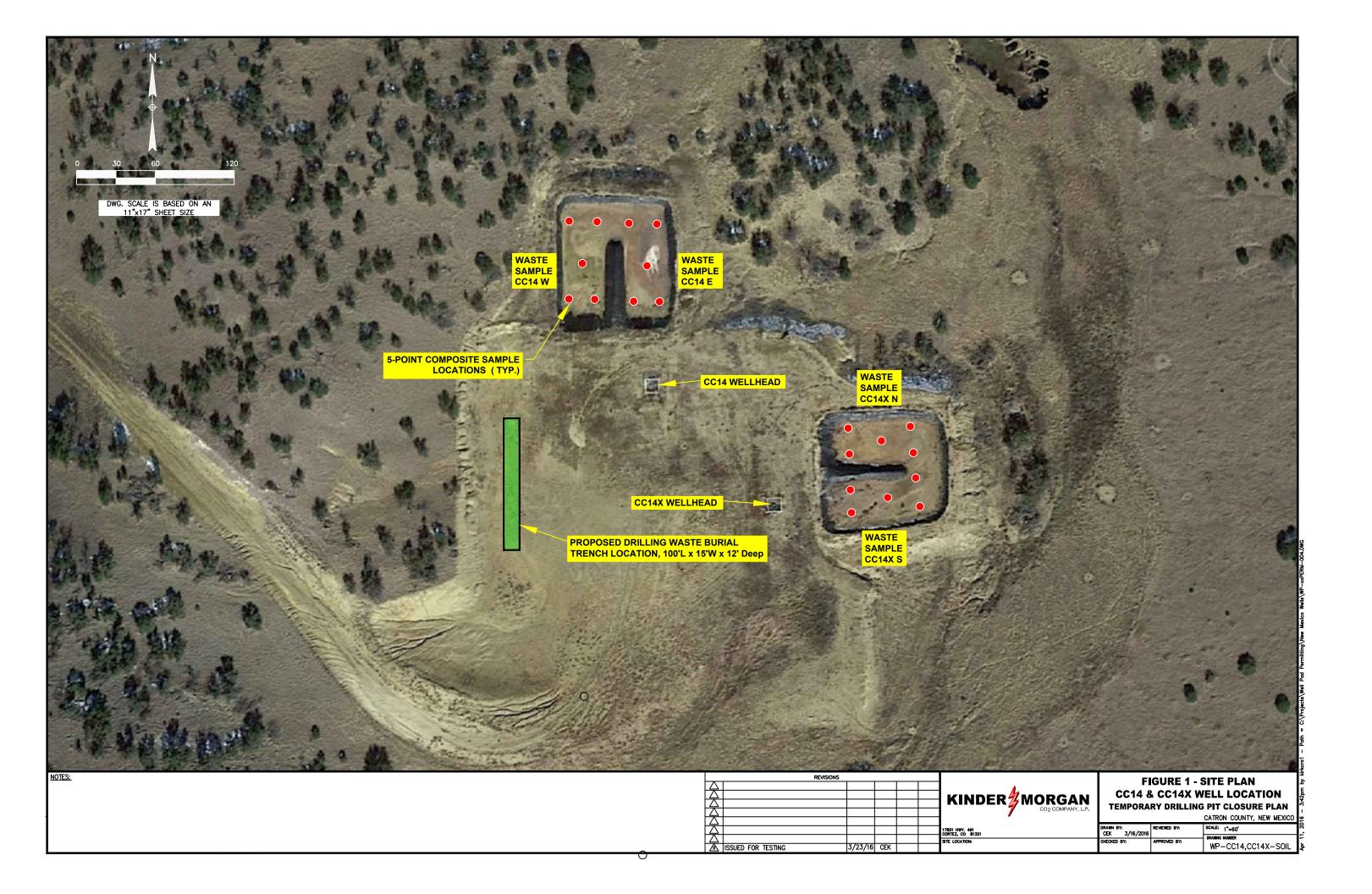
A certified closure report will be submitted on form C-144, including sampling results and construction details, within 60 days of temporary pit closure completion. The exact location of the onsite burial trench will be reported on form C-105.

#### **On-Site Burial Identification**

A steel marker will be placed at the center of the on-site burial trench. The marker will meet the minimum material and information requirements of 19.15.17.13.F.(3) NMAC.

#### **Other Well Location Markers**

After wells CC14 and CC14X have been properly plugged and abandoned and final reclamation of the drilling location has been completed, markers meeting the minimum material and information requirements of 19.15.25.10.B. NMAC will be placed in the exact locations the wells.





75 Suttle Street Durango, CO 81303 970.247.4220 Phone 970.247.4227 Fax www.greenanalytical.com

09 March 2016

Michael Hannigan Kinder Morgan 17801 Hwy 491 Cortez, CO 81321

RE: Misc.

Enclosed are the results of analyses for samples received by the laboratory on 02/12/16 11:05. If you need any further assistance, please feel free to contact me.

Sincerely,

Debbie Zufelt

Reports Manager

Dellie Zufett

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <a href="http://greenanalytical.com/certifications/">http://greenanalytical.com/certifications/</a>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



#### www.GreenAnalytical.com

Kinder Morgan Project: Misc.

17801 Hwy 491 Project Name / Number: Cottonwood Canyon Reported:
Cortez CO, 81321 Project Manager: Michael Hannigan 03/09/16 16:02

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CC14XS	1602107-01	Solid	02/11/16 14:10	02/12/16 11:05
CC14XN	1602107-02	Solid	02/11/16 14:20	02/12/16 11:05
CC14E	1602107-03	Solid	02/11/16 14:30	02/12/16 11:05
CC14W	1602107-04	Solid	02/11/16 14:40	02/12/16 11:05

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seldie Zufett



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

#### www.GreenAnalytical.com

Project: Misc.

17801 Hwy 491 Project Name / Number: Cottonwood Canyon
Cortez CO, 81321 Project Manager: Michael Hannigan

**Reported:** 03/09/16 16:02

#### CC14XS

#### 1602107-01 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
% Dry Solids	81.2			%	1	02/24/16	ASA#9 & SSSA#5	H2	LLG
Soluble (DI Water Extraction)									
Chloride	6540	493	25.6	mg/kg dry	400	02/25/16	EPA300.0		JDA
Subcontracted Cardinal Labor	atories								
Organic Compounds									
ГРН 418.1	911	100	13.5	mg/kg	10	03/09/16	418.1		CK
Volatile Organic Compounds by EPA N	Method 8021								
Benzene*	< 0.050	0.050	0.005	mg/kg	50	02/19/16	8021B		MS
Toluene*	1.60	0.050	0.006	mg/kg	50	02/19/16	8021B		MS
Ethylbenzene*	< 0.050	0.050	0.017	mg/kg	50	02/19/16	8021B		MS
Total Xylenes*	< 0.150	0.150	0.043	mg/kg	50	02/19/16	8021B		MS
Total BTEX	1.60	0.300	0.070	mg/kg	50	02/19/16	8021B		MS
Surrogate: 4-Bromofluorobenzene (PID)			109 %	73.6-140		02/19/16	8021B		MS
Petroleum Hydrocarbons by GC FID									
GRO C6-C10	<10.0	10.0	2.59	mg/kg	1	02/17/16	8015B		MS
DRO >C10-C28	61.1	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
EXT DRO >C28-C35	72.5	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
Surrogate: 1-Chlorooctane			101 %	35-147		02/17/16	8015B		MS
Surrogate: 1-Chlorooctadecane			113 %	28-171		02/17/16	8015B		MS

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Deldie Zufett



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#### www.GreenAnalytical.com

Project: Misc.

17801 Hwy 491 Project Name / Number: Cottonwood Canyon Cortez CO, 81321 Project Manager: Michael Hannigan

Reported:

03/09/16 16:02

#### CC14XN

#### 1602107-02 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
% Dry Solids	71.7			%	1	02/24/16	ASA#9 & SSSA#5	H2	LLG
Soluble (DI Water Extraction)									
Chloride	2400	112	5.80	mg/kg dry	80	02/25/16	EPA300.0		JDA
Subcontracted Cardinal Labor	atories								
Organic Compounds									
ТРН 418.1	1530	100	13.5	mg/kg	10	03/09/16	418.1		CK
Volatile Organic Compounds by EPA	Method 8021								
Benzene*	< 0.050	0.050	0.005	mg/kg	50	02/19/16	8021B		MS
Toluene*	0.975	0.050	0.006	mg/kg	50	02/19/16	8021B		MS
Ethylbenzene*	< 0.050	0.050	0.017	mg/kg	50	02/19/16	8021B		MS
Total Xylenes*	< 0.150	0.150	0.043	mg/kg	50	02/19/16	8021B		MS
Total BTEX	0.975	0.300	0.070	mg/kg	50	02/19/16	8021B		MS
Surrogate: 4-Bromofluorobenzene (PID)			112 %	73.6-140		02/19/16	8021B		MS
Petroleum Hydrocarbons by GC FID									
GRO C6-C10	<10.0	10.0	2.59	mg/kg	1	02/17/16	8015B		MS
DRO >C10-C28	<10.0	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
EXT DRO >C28-C35	<10.0	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
Surrogate: 1-Chlorooctane			98.6 %	35-147		02/17/16	8015B		MS
Surrogate: 1-Chlorooctadecane			108 %	28-171		02/17/16	8015B		MS

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Project: Misc.

17801 Hwy 491 Project Name / Number: Cottonwood Canyon
Cortez CO, 81321 Project Manager: Michael Hannigan

**Reported:** 03/09/16 16:02

#### CC14E

#### 1602107-03 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
% Dry Solids	74.3			%	1	02/24/16	ASA#9 & SSSA#5	H2	LLG
Soluble (DI Water Extraction)									
Chloride	7940	538	27.9	mg/kg dry	400	02/25/16	EPA300.0		JDA
Subcontracted Cardinal Labor	atories								
Organic Compounds									
ГРН 418.1	1040	100	13.5	mg/kg	10	03/09/16	418.1		CK
Volatile Organic Compounds by EPA	Method 8021								
Benzene*	< 0.050	0.050	0.005	mg/kg	50	02/19/16	8021B		MS
Toluene*	0.889	0.050	0.006	mg/kg	50	02/19/16	8021B		MS
Ethylbenzene*	< 0.050	0.050	0.017	mg/kg	50	02/19/16	8021B		MS
Total Xylenes*	< 0.150	0.150	0.043	mg/kg	50	02/19/16	8021B		MS
Total BTEX	0.889	0.300	0.070	mg/kg	50	02/19/16	8021B		MS
Surrogate: 4-Bromofluorobenzene (PID)			108 %	73.6-140		02/19/16	8021B		MS
Petroleum Hydrocarbons by GC FID									
GRO C6-C10	<10.0	10.0	2.59	mg/kg	1	02/17/16	8015B		MS
DRO >C10-C28	<10.0	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
EXT DRO >C28-C35	<10.0	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
Surrogate: 1-Chlorooctane			89.7 %	35-147		02/17/16	8015B		MS
Surrogate: 1-Chlorooctadecane			97.6 %	28-171		02/17/16	8015B		MS

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Project: Misc.

17801 Hwy 491 Project Name / Number: Cottonwood Canyon Cortez CO, 81321 Project Manager: Michael Hannigan

Reported:

03/09/16 16:02

#### CC14W

#### 1602107-04 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
% Dry Solids	65.7			%	1	02/24/16	ASA#9 & SSSA#5	H2	LLG
Soluble (DI Water Extraction)									
Chloride	10100	609	31.6	mg/kg dry	400	02/25/16	EPA300.0		JDA
Subcontracted Cardinal Labor	ratories								
Organic Compounds									
ТРН 418.1	528	100	13.5	mg/kg	10	03/09/16	418.1		CK
Volatile Organic Compounds by EPA	Method 8021								
Benzene*	< 0.050	0.050	0.005	mg/kg	50	02/19/16	8021B		MS
Toluene*	0.349	0.050	0.006	mg/kg	50	02/19/16	8021B		MS
Ethylbenzene*	< 0.050	0.050	0.017	mg/kg	50	02/19/16	8021B		MS
Total Xylenes*	< 0.150	0.150	0.043	mg/kg	50	02/19/16	8021B		MS
Total BTEX	0.349	0.300	0.070	mg/kg	50	02/19/16	8021B		MS
Surrogate: 4-Bromofluorobenzene (PID)			107 %	73.6-140		02/19/16	8021B		MS
Petroleum Hydrocarbons by GC FID									
GRO C6-C10	<10.0	10.0	2.59	mg/kg	1	02/17/16	8015B		MS
DRO >C10-C28	<10.0	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
EXT DRO >C28-C35	<10.0	10.0	5.51	mg/kg	1	02/17/16	8015B		MS
Surrogate: 1-Chlorooctane			89.6 %	35-147		02/17/16	8015B		MS
Surrogate: 1-Chlorooctadecane			99.7 %	28-171		02/17/16	8015B		MS

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Kinder MorganProject:Misc.17801 Hwy 491Project Name / Number:Cottonwood CanyonReported:Cortez CO, 81321Project Manager:Michael Hannigan03/09/16 16:02

#### **General Chemistry - Quality Control**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B602186 - General Prep - Wet Chem										
Duplicate (B602186-DUP1)	Sou	ırce: 1602107-	-01 Prepa	ared & Ana	lyzed: 02/24	1/16				
% Dry Solids	82.3		%		81.2			1.42	20	
	Soluble	(DI Water	Extraction	on) - Qua	lity Cont	rol				
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B602184 - General Prep - Wet Chem										
Blank (B602184-BLK1)			Prepa	ared: 02/24/	16 Analyz	ed: 02/26/1	6			
Chloride	ND	1.00	mg/kg wet							
LCS (B602184-BS1)			Prepa	ared: 02/24/	16 Analyz	ed: 02/25/1	6			
Chloride	108	4.00	mg/kg wet	100		108	85-115			
LCS Dup (B602184-BSD1)			Prepa	ared: 02/24/	16 Analyz	ed: 02/25/10	6			
Chloride	108	4.00	mg/kg wet	100		108	85-115	0.148	20	
	Or	ganic Com	pounds -	Quality (	Control					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6030803 - Solvent Extraction										
Blank (6030803-BLK1)			Prepa	ared: 03/08/	16 Analyz	ed: 03/09/1	6			
TPH 418.1	ND	100	mg/kg							
LCS (6030803-BS1)			Prepa	ared: 03/08/	16 Analyz	ed: 03/09/1	6			
TPH 418.1	5820	100	mg/kg	5000		116	70-130			
LCS Dup (6030803-BSD1)			Prepa	ared: 03/08/	16 Analyz	ed: 03/09/10	6			
TPH 418.1	5790	100	mg/kg	5000		116	70-130	0.551	20	

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lie Zufett



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Kinder Morgan Project: Misc.

17801 Hwy 491Project Name / Number: Cottonwood CanyonReported:Cortez CO, 81321Project Manager: Michael Hannigan03/09/16 16:02

#### Volatile Organic Compounds by EPA Method 8021 - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6021901 - Volatiles										
Blank (6021901-BLK1)			Prep	ared & Anal	yzed: 02/19	9/16				
Surrogate: 4-Bromofluorobenzene (PID)	0.0534		mg/kg	0.0500		107	73.6-140			
Benzene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
LCS (6021901-BS1)			Prep	ared & Anal	yzed: 02/19	9/16				
Surrogate: 4-Bromofluorobenzene (PID)	0.0525		mg/kg	0.0500		105	73.6-140			
Benzene	2.04	0.050	mg/kg	2.00		102	82.6-122			
Ethylbenzene	1.82	0.050	mg/kg	2.00		91.1	65.4-131			
Toluene	2.01	0.050	mg/kg	2.00		101	72.9-122			
Total Xylenes	5.64	0.150	mg/kg	6.00		94.0	73.8-125			
LCS Dup (6021901-BSD1)			Prep	ared & Anal	yzed: 02/19	9/16				
Surrogate: 4-Bromofluorobenzene (PID)	0.0514		mg/kg	0.0500		103	73.6-140			
Benzene	2.06	0.050	mg/kg	2.00		103	82.6-122	0.658	8.23	
Ethylbenzene	1.82	0.050	mg/kg	2.00		91.0	65.4-131	0.118	9.46	
Toluene	2.02	0.050	mg/kg	2.00		101	72.9-122	0.555	8.71	
Total Xylenes	5.63	0.150	mg/kg	6.00		93.8	73.8-125	0.224	8.66	

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Deldie Zufett



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Kinder Morgan Project: Misc.

17801 Hwy 491Project Name / Number: Cottonwood CanyonReported:Cortez CO, 81321Project Manager: Michael Hannigan03/09/16 16:02

#### Petroleum Hydrocarbons by GC FID - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6021705 - General Prep - Organics										
Blank (6021705-BLK1)			Prep	ared & Ana	lyzed: 02/17	7/16				
Surrogate: 1-Chlorooctadecane	58.4		mg/kg	50.0		117	28-171			
Surrogate: 1-Chlorooctane	54.1		mg/kg	50.0		108	35-147			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
LCS (6021705-BS1)			Prep	ared & Ana	lyzed: 02/17	7/16				
Surrogate: 1-Chlorooctadecane	60.9		mg/kg	50.0		122	28-171			
Surrogate: 1-Chlorooctane	57.3		mg/kg	50.0		115	35-147			
DRO >C10-C28	238	10.0	mg/kg	200		119	78.3-122			
GRO C6-C10	224	10.0	mg/kg	200		112	76.7-115			
Total TPH C6-C28	462	10.0	mg/kg	400		116	79.8-117			
LCS Dup (6021705-BSD1)			Prep	ared & Ana	lyzed: 02/17	7/16				
Surrogate: 1-Chlorooctadecane	45.1		mg/kg	50.0		90.2	28-171			
Surrogate: 1-Chlorooctane	50.4		mg/kg	50.0		101	35-147			
DRO >C10-C28	197	10.0	mg/kg	200		98.5	78.3-122	18.8	13.2	QR-0
GRO C6-C10	209	10.0	mg/kg	200		104	76.7-115	7.24	9.42	
Total TPH C6-C28	406	10.0	mg/kg	400		101	79.8-117	13.0	10.7	QR-0

Green Analytical Laboratories

Deldie Zufett



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Kinder Morgan Project: Misc.

17801 Hwy 491 Project Name / Number: Cottonwood Canyon Reported:
Cortez CO, 81321 Project Manager: Michael Hannigan 03/09/16 16:02

#### **Notes and Definitions**

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch

were accepted based on percent recoveries and completeness of QC data.

H2 Sample analysis performed past hold time specified by the method.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

\*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

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seldie Zufett



Client: Kinder Morgan CO2 Company L.P.

Contact: Michael Hannigan

Address: 17801 U.S. Highway 491 Cortez, CO 81321

Phone Number: (970) 882-5532

Email: Michael\_Hannigan@kindermorgan.com

# CHAIN OF CUSTODY RECORD

NOTES:

- 1) Ensure proper container packaging.
- 2) Ship samples promptly following collection.
- 3) Designate Sample Reject Disposition.

Project Name: COTTON WOOD CANYON

1 =Surface Water, 2 =Ground Water Table 1. – Matrix Type

Samplers Signature: M were the

3 = Soil/Sediment, 4 = Rinsate, 5 = Oil6 = Waste, 7 = Other (Specify)

602-10-FOR GAL USE ONLY GAL JOB#

Relinquished by:	Relinquished by: Mile	10.	9.	8.	7.	6.	5.	WARD.	3.CC/4层	2 CC 14 X N	1. CC 4X 5	Sample ID		Address: 75 Suttle	Lab Name: Green Ana
C	athix	•						•		-	2/11/16	Date	Collection	75 Suttle Street, Durango, CO 81303	Green Analytical Laboratories
								4.40	14:30	14:20	14:10	Time	ction	go, CO 813	atories
Date:	Date							*			N AN	Collected by: (Init.)  Matrix Type	Mis	03	
	Date: 2/12/16							*	de Caracian de	_	7	From Table 1  No. of Containers	Miscellaneous	wwv	(970) 247-4220
							<	<		-	7	Sample Filtered ? Y/N		www.greenanalytical.com	
Time:	Time:	-	+		-	4		×	X,	×	×	Unpreserved (Ice Only)		nana	FAX (970) 247-4227
			+		-							HNO3	Preservative(s)	lyti	70) 2
R	1:05 Received by:	-	-	-	-	+						HCL	erva	cal.	247-
Received by:	eceiv	-		1	_	_						H2SO4	tive	con	4227
ed by	ed by	_	_	_			_					NAOH	s	_	_
	1		_									Other (Specify)			
No. of Date:	D. 1.0. 5. 1014 D.							×	×	*	X	NMOCD TABLE II	Sol		Analyses Required
6	Date: Time:											5,8°C		#1 onles	

\* Sample Reject: [ ] Return [ ] Dispose [ ] Store (30 Days)

Page 1 of

		or 8015M		
	Chloride	EPA Method 300.0	40,000 mg/kg	
51-100 feet	ТРН	EPA SW-846 Method 418.1	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 8015M	10 mg/kg	
	Chloride	EPA Method 300.0	80,000 mg/kg	
> 100 feet	TPH	EPA SW-846 Method 418.1	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 8015M	10 mg/kg	

<sup>\*</sup>Or other test methods approved by the division

[19.15.17.13 NMAC - Rp, 19.15.17.13 NMAC, 6/28/13]

#### 19.15.17.14 EMERGENCY ACTIONS:

- A. Permit not required. In an emergency an operator may construct a pit without a permit to contain fluids, solids or wastes, if an immediate danger to fresh water, public health or the environment exists.
- **B.** Construction standards. The operator shall construct an emergency pit, to the extent possible given the emergency, in a manner that is consistent with the requirements for a temporary pit specified in 19.15.17 NMAC and that prevents the contamination of fresh water and protects public health and the environment.
- C. Notice. The operator shall notify the appropriate division district office as soon as possible (if possible before construction begins) of the need for such pit's construction.
- D. Use and duration. A pit constructed in an emergency may be used only for the emergency's duration. If the emergency lasts more than 48 hours, then the operator shall seek the appropriate division district office's approval for the pit's continued use. The operator shall remove all fluids, solids or wastes within 48 hours after cessation of use unless the appropriate division district office extends that time period. [19.15.17.14 NMAC Rp, 19.15.17.14 NMAC, 6/28/13]

#### 19.15.17.15 EXCEPTIONS AND VARIANCES:

#### A. Variances.

- (1) An operator shall demonstrate with a complete application to the appropriate division district office that the requested variance provides equal or better protection of fresh water, public health and the environment. The appropriate division district office shall approve or deny the variance within 60 days of receipt of the complete application.
- (2) If the appropriate division district office denies the variance then it shall notify the operator within 60 days of receipt of the complete application for the reasons of denial by certified mail, return receipt requested. If the operator requests a hearing within 10 days after receipt of such notice, the division shall set the matter for hearing, with notice to the operator and the appropriate division district office.
  - (3) An application for a variance shall include:
    - (a) a statement in detail explaining why the applicant wants to vary from the requirement of 19.15.17 NMAC, and
- (b) a detailed written demonstration that the variance will provide equal or better protection of fresh water, public health and the environment.
- (4) If a variance goes to hearing pursuant to Paragraph (2) of Subsection A of 19.15.17.15 NMAC, in addition to the hearing process required by 19.15.4 NMAC, the application for hearing shall include:
  - (a) a copy of the complete application submitted for a variance under Paragraph (3) of Subsection A of 19.15.17.15 NMAC;
  - (b) proof of notification to the surface owner of the location of the requested variance.
  - (5) The division clerk will set the application for hearing as soon as practicable.

#### B. Exceptions

- (1) An operator may apply to the division's Santa Fe office for an exception that is allowed by a provision of 19.15.17 NMAC.
- (2) The operator shall give written notice by certified mail, return receipt requested, to:
  - (a) the surface owner of record where the exception is requested, or will be located;
  - (b) surface owners of record within one-half mile of such location;

<sup>\*\*</sup>Numerical limits or natural background level, whichever is greater

From: Lowe, Leonard, EMNRD

To: "Hannigan, Michael"; Millican, Chris; White, Thomas
Cc: Jones, William V, EMNRD; Griswold, Jim, EMNRD
Subject: APPROVED DEEP TRENCH (C14/CC14X Pit Closure Plans)

**Date:** Friday, April 15, 2016 3:15:00 PM

Importance: High

Mr. Hannigan,

OCD Santa Fe approves the deep trench construction and burial of cuttings from API # 30-003-20041 [CC 14] and API # 30-003-20042 [CC 14X].

The previously approved C-144's for CC14 and CC14X shall still be adhered to, where applicable. For pit closure. Any noted release shall be address via an initial C-141.

The approved C-144 (dated 04.15.16) are for the NEW DEEP TRENCH and the placement of contents from CC14 and CC14X.

Your approved C-144's are located on our website: <a href="http://ocdimage.emnrd.state.nm.us/imaging/WellFileCriteria.aspx">http://ocdimage.emnrd.state.nm.us/imaging/WellFileCriteria.aspx</a>

#### **Leonard Lowe**

Engineering Bureau
Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St. Frances
Santa Fe, New Mexico 87004

Office: 505-476-3492 Fax: 505-476-3462

E-mail: leonard.lowe@state.nm.us

Website: <a href="http://www.emnrd.state.nm.us/ocd/">http://www.emnrd.state.nm.us/ocd/</a>

**From:** Hannigan, Michael [mailto:Michael\_Hannigan@kindermorgan.com]

**Sent:** Thursday, April 14, 2016 3:43 PM

To: Lowe, Leonard, EMNRD < Leonard.Lowe@state.nm.us>

**Cc:** Millican, Chris < Chris\_Millican@kindermorgan.com>; White, Thomas

<Thomas\_White@kindermorgan.com>
Subject: CC14/CC14X Pit Closure Plans

#### Leonard.

Attached please find electronic copies of the Form C-144 pit closure plans for the CC14/CC14X well location. I have revised the forms and protocols/procedures based on our telephone conversation earlier this afternoon. I would appreciate it if you could cc: Chris Millican and Tom White (see email addresses above) with copies of the approved plans. Please let me know ASAP if you need any other modifications to the forms or the plans. Thanks again for your help,

Mike

Senior EHS Specialist



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