



COMPLIANCE / ENGINEERING / REMEDIATION

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December 19, 2012

4M Mitigation  
Project #2019

Ms. Kara Hellige  
U.S. Army Corps of Engineers  
Durango Regulatory Field Office  
Sacramento District  
1970 E. 3rd Ave, Suite 109  
Durango, Colorado 81301

**RE: South Fork of Texas Creek Final Monitoring Report; SPK-2008-01183-DC**

Ms. Hellige:

On behalf of the Colorado Oil and Gas Conservation Commission (COGCC), LT Environmental (LTE) is pleased to transmit to you the 2012 Annual Monitoring Report for the South Fork of Texas Creek site. LTE, on behalf of the COGCC, requests concurrence from the U.S. Army Corps of Engineers that the conditions of the permit have been met and this report constitutes the final monitoring report for this project.

If you have any questions or comments regarding findings of this report, do not hesitate to contact me at (970) 385-1096 or via email at [jlinn@ltenv.com](mailto:jlinn@ltenv.com).

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in blue ink that reads 'Julie Linn'.

Julie Linn, P.G.  
Senior Geologist

Copy: Karen Spray, P.G., COGCC  
Chris Shepherd, P.E., LTE

# **FINAL MONITORING REPORT**

**U.S. ARMY CORPS OF ENGINEERS  
SPK -2008-01183-DC**

**SOUTH FORK OF TEXAS CREEK  
LA PLATA COUNTY, COLORADO**

**DECEMBER 2012**

**Prepared for:**

**U.S. ARMY CORPS OF ENGINEERS  
MS. KARA HELLIGE  
1970 E. 3rd Ave, Suite 109  
Durango, Colorado 81301**



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**Prepared for:**

**U.S. ARMY CORPS OF ENGINEERS  
MS. KARA HELLIGE  
1970 E. 3rd Ave, Suite 109  
Durango, Colorado 81301**

**Prepared by:  
LT ENVIRONMENTAL, INC.  
2243 Main Avenue, Suite 3  
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## TABLE OF CONTENTS

<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
1.0 PROJECT OVERVIEW .....	1-1
1.1 SITE NAME AND CORPS PERMIT NUMBER.....	1-1
1.2 RESPONSIBLE MONITORING PARTY.....	1-1
1.3 PROJECT DESCRIPTION .....	1-1
1.4 PROJECT LOCATION.....	1-1
1.5 DATES COMPENSATORY MITIGATION PROJECT COMMENCED .....	1-1
1.6 PERFORMANCE STANDARDS .....	1-2
1.7 RECENT CORRECTIVE OR MAINTENANCE ACTIVITIES .....	1-2
1.8 RECOMMENDATIONS FOR ADDITIONAL CORRECTIVE/REMEDIAL ACTIONS.....	1-2
2.0 PLAN REQUIREMENTS .....	2-1
3.0 SUMMARY DATA.....	3-1
4.0 CONCLUSIONS .....	4-1

## FIGURES

FIGURE 1      SITE LOCATION MAP

## APPENDICES

APPENDIX A    PHOTOGRAPHIC LOG

## **1.0 PROJECT OVERVIEW**

### **1.1 SITE NAME AND CORPS PERMIT NUMBER**

The U.S. Army Corps of Engineers (USACE) has assigned permit number SPK-2008-01183-DC to the south fork of Texas Creek (SFTC) project (Site).

### **1.2 RESPONSIBLE MONITORING PARTY**

LT Environmental, Inc. (LTE) is the party responsible for monitoring the Site.

### **1.3 PROJECT DESCRIPTION**

LTE has been retained by the Colorado Oil and Gas Conservation Commission to obtain a permit and monitor the temporary impacts to 0.021 acres of palustrine emergent wetlands and 0.025 acres within the Ordinary High Water Mark (OHWM) of the SFTC. The impacts were authorized under Nationwide Permit (NWP) 18 - Minor Discharges and NWP 33 - Temporary Construction, Access, and Dewatering. These impacts were due to the expansion of a remediation system to capture and mitigate naturally seeping methane. Monitoring of the Site must occur to ensure that there is no net loss of wetlands due to the placement of methane capture tubing installed under the bed of SFTC.

During construction activities in 2010, the SFTC was temporarily diverted into a 12-inch diameter culvert. The top 8 inches of hydric soil containing complete root clods was removed and segregated from the remaining hydric soil. All soil was stockpiled in upland areas. After installation of the methane capture system, the excavated hydric soil was replaced in the creek bed and the root clods and plants were placed on top of the replaced hydric soil. LTE was on the Site during all of the excavation and backfilling activities, and directed the emplacement of backfill materials to retain appropriate water flow and saturated conditions through the affected areas. After backfilling was completed, LTE personnel conducted additional revegetation activities in the affected areas.

### **1.4 PROJECT LOCATION**

The Site is located approximately one mile south of the intersection of La Plata County Roads 245 and 502. The Site is located in Section 8 of Township 35 North and Range 7 West, New Mexico Prime Meridian at latitude 37.3153484127242 degrees (°) and longitude -107.652695683395° in La Plata County, Colorado. The site location is depicted on Figure 1.

### **1.5 DATES COMPENSATORY MITIGATION PROJECT COMMENCED**

Formal mitigation is not required for this project since the impacts were temporary. However, a three year monitoring period was proposed and approved by the USACE. LTE commenced annual monitoring activities for this Site in July 2010, following completion of the construction activities. 2012 is considered the third year of the three year monitoring period.

## **1.6 PERFORMANCE STANDARDS**

Since mitigation is not required, there are no formal performance standards for the Site.

## **1.7 RECENT CORRECTIVE OR MAINTENANCE ACTIVITIES**

LTE conducted a site visit on June 13, 2012. There were no corrective or maintenance activities conducted during this site visit.

## **1.8 RECOMMENDATIONS FOR ADDITIONAL CORRECTIVE/REMEDIAL ACTIONS**

LTE has restored a total of 0.021 acres of palustrine emergent wetlands and 0.025 acres of water below the OHWM to the South Fork of Texas Creek and does not have any recommendations for additional corrective or remedial actions.

## 2.0 PLAN REQUIREMENTS

A special condition of the USACE permit approval was:

“[T]o ensure impacts are temporary in nature, South Texas Creek and its abutting wetlands must be restored to its original condition as shown in the wetland delineation report submitted with your permit application.”

LTE has monitored this Site annually for three years (2010, 2011, and 2012), as approved by the USACE. LTE has concluded that no net loss of palustrine emergent wetlands or water below the OHWM has occurred at the Site and that the monitoring requirements for this Site have been met.

### **3.0 SUMMARY DATA**

Site construction and the first year of monitoring occurred in 2010. Based on site conditions, LTE conducted minor modifications to the Site in 2011. The year of 2012 was extremely dry, with low flow conditions observed in Texas Creek on June 13, 2012. By July 2012, and through December 2012, Texas Creek did not contain any surface flow. The lack of water affected vegetation not only in the area of temporary impact, but also in Texas Creek upstream and downstream of the Site. Photographs from specific reference points are attached in Appendix A of this report to depict affected vegetation and other observations at the Site on June 13, 2012.

LTE believes the 0.021 acres of palustrine emergent wetlands and 0.025 acres of water below the OHWM of the South Fork of Texas Creek have been restored; and upon return of natural moisture, the vegetation at the Site will recover to its pre-impact condition.



#### **4.0 CONCLUSIONS**

The Site appears to be restored to its original condition of 0.021 acres of palustrine emergent wetlands and 0.025 acres of water below the OHWM. Due to drought conditions during 2012, the vegetation at the Site appears to be slightly more stressed than would be observed under normal precipitation conditions. Texas Creek did not contain any surface flow from July through December 2012. All special conditions outlined in the verification letter, dated May 27, 2010 have been met; therefore, LTE recommends discontinuing monitoring of this Site.

## FIGURES



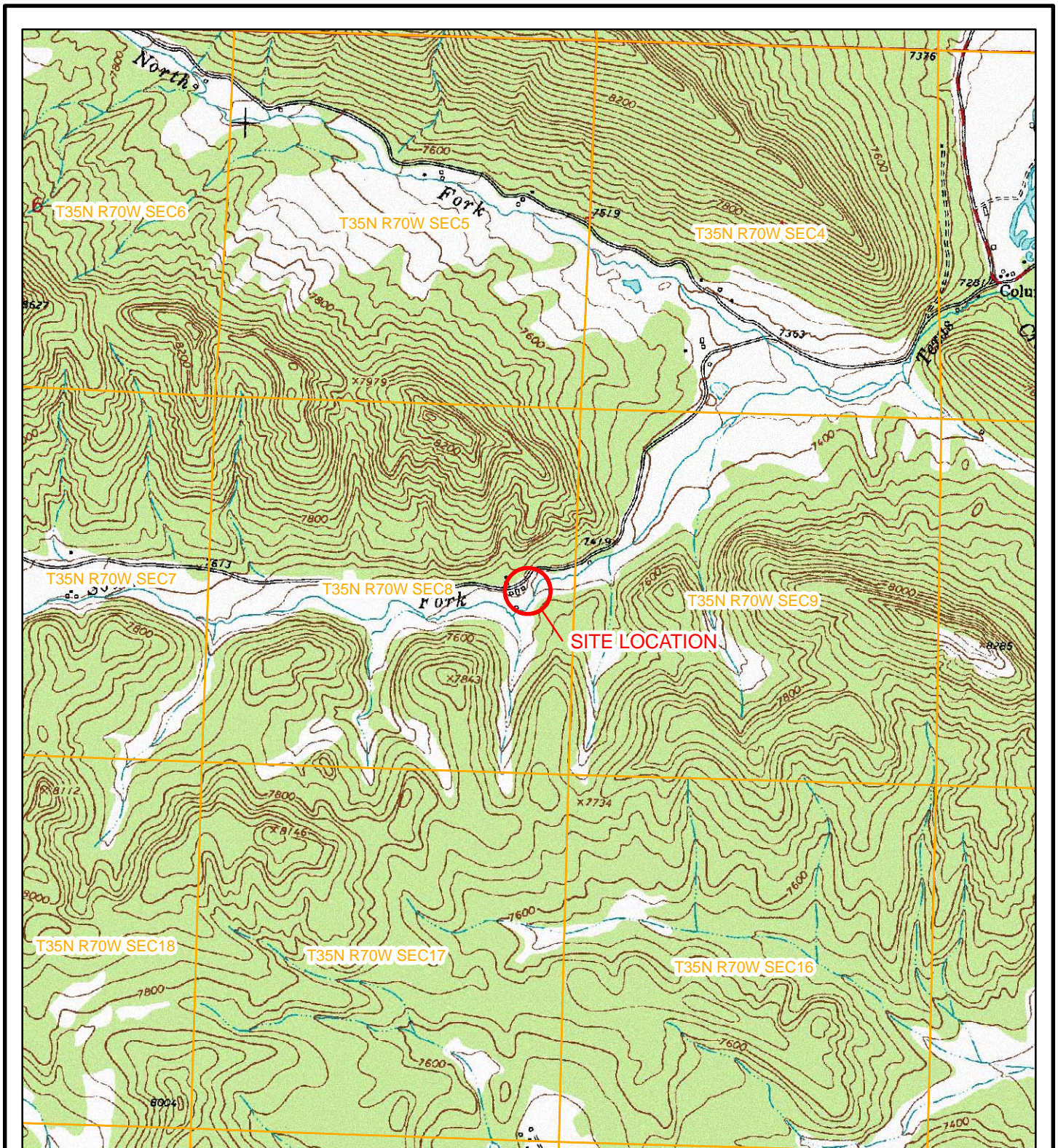
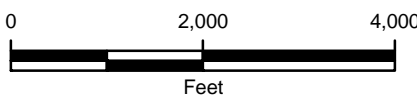


IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

**LEGEND**

- SITE LOCATION
- SECTION



**FIGURE 1**  
**SITE LOCATION MAP**  
**SOUTH FORK TEXAS CREEK**  
**SEC 8 T35N R70W**  
**LA PLATA COUNTY, COLORADO**  
**COLORADO OIL AND GAS CONSERVATION COMMISSION**





**APPENDIX A**  
**PHOTOGRAPHIC LOG**



## PHOTOGRAPHIC LOG SOUTH FORK OF TEXAS CREEK



Photograph 1: 6/30/10: View of Texas Creek to the east prior to temporary impacts.



Photograph 2: 6/13/12: View of Texas Creek to the east 3 years after temporary impacts. Vegetation looks slightly stressed in bed of Texas Creek due to severe lack of precipitation and drought conditions present in 2012.



## PHOTOGRAPHIC LOG SOUTH FORK OF TEXAS CREEK



Photograph 3: 6/13/12: View to west of Texas Creek on north bank at location of temporary impact. Vegetation looks slightly stressed in bed of Texas Creek due to severe lack of precipitation and drought conditions present in 2012.



Photograph 4: 6/13/12: view to west of Texas Creek on south bank at location of temporary impact. Vegetation looks slightly stressed in bed of Texas Creek due to severe lack of precipitation and drought conditions present in 2012.