

State of Colorado  
**Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

**SITE INVESTIGATION AND REMEDIATION WORKPLAN**

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

OGCC Employee:

Spill                      Complaint  
Inspection              NOAV

Tracking No:

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

Spill or Release      Plug & Abandon      Central Facility Closure      Site/Facility Closure      Other (describe): \_\_\_\_\_

OGCC Operator Number: \_\_\_\_\_

Name of Operator: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Contact Name and Telephone: \_\_\_\_\_

No: \_\_\_\_\_

Fax: \_\_\_\_\_

API Number: \_\_\_\_\_

County: \_\_\_\_\_

Facility Name: \_\_\_\_\_

Facility Number: \_\_\_\_\_

Well Name: \_\_\_\_\_

Well Number: \_\_\_\_\_

Location: (QtrQtr, Sec, Twp, Rng, Meridian): \_\_\_\_\_ Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

**TECHNICAL CONDITIONS**

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): \_\_\_\_\_

Site Conditions: Is location within a sensitive area (according to Rule 901e)?      Y      N      If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): \_\_\_\_\_

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: \_\_\_\_\_

Potential receptors (water wells within 1/4 mi, surface waters, etc.): \_\_\_\_\_

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
Soils	_____	_____
Vegetation	_____	_____
Groundwater	_____	_____
Surface Water	_____	_____

**REMEDIALTION WORKPLAN**

Describe initial action taken (if previously provided, refer to that form or document):

Describe how source is to be removed:

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:



Tracking Number: \_\_\_\_\_  
Name of Operator: \_\_\_\_\_  
OGCC Operator No: \_\_\_\_\_  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: \_\_\_\_\_

## REMEDIATION WORKPLAN (Cont.)

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required?                      Y                      N                      If yes, describe:

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

## IMPLEMENTATION SCHEDULE

Date Site Investigation Began: \_\_\_\_\_ Date Site Investigation Completed: \_\_\_\_\_ Date Remediation Plan Submitted: \_\_\_\_\_  
Remediation Start Date: \_\_\_\_\_ Anticipated Completion Date: \_\_\_\_\_ Actual Completion Date: \_\_\_\_\_

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: \_\_\_\_\_ Signed: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

OGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_



300 E. Mineral Ave., Suite 10  
Littleton, Colorado 80122-2655  
303/781-8211 303/781-1167 Fax

April 19, 2010

Summary:

On March 30, 2010, soil samples from the reserve pit on the Bledsoe Federal 1-29-5-44 (API# 05-125-11327), operated by Omimex Petroleum Inc., were collected by Daniel Soucy of Buys & Associates. This site was sampled in order to ensure that Omimex is meeting the requirements set forth by the COGCC to close the pits and begin site remediation. Form 27 (site investigation and remedial work plan) will be completed and submitted for this site prior to starting any pit remediation work.

Samples were collected at four locations in the pit, near each of the corners, and from a depth of about three feet below the base of the pit (see attached site map). These four samples were then mixed together, forming one composite sample. This composite sample was analyzed for the parameters listed on Table 910-1 of the Colorado Oil and Gas Conservation Commission (COGCC) 900 Series Rules.

In addition, two background soil samples were collected and analyzed for metals and pH only.

Tables 1-3 below summarize the analytical results.

Table 1. Summary of Analytical Results for Metals for Pit Soil Samples

Parameter	Sample ID			COGCC Limit
	Bledsoe Federal 1-29-5-44	Background Site 1	Background Site 2	
Arsenic	<b>2.2</b>	<0.33	<0.33	0.39
Barium	63	36	45	15000
Cadmium	ND	ND	ND	70
Chromium (III)	ND	ND	ND	120,000
Chromium (IV)	ND UJ	ND	ND	23
Copper	9.4	2.4	2.6	3,100
Lead	9.2	3.4	3.8	400
Mercury	ND	ND	ND	23
Nickel	6.9	1.8	1.8	1,600
Selenium	ND	ND	ND	390
Silver	ND	ND	ND	390
Zinc	31	9.0	9.9	23000

All units in mg/Kg

UJ = Not detected at an estimated detection limit

ND – Not detected

Values in Bold exceed the COGCC Allowable Concentration

Arsenic exceeded the COGCC allowable concentration at the Bledsoe Federal 1-29-5-44 site. All other metals were reported as not detected or below the COGCC limits.

Table 2. Summary of Analytical Results for Inorganics for Pit Soil Samples

Parameter	Sample ID			COGCC Limit
	Bledsoe Federal 1-29-5-44	Back 1	Back 2	
Electrical Conductivity	0.950	NM	NM	<4 or 2x background
Sodium Adsorption Ratio	9.8	NM	NM	12
pH	8.50 J	8.20 J	6.60 J	6-9

NM – Not Measured

Electrical Conductivity is measured in mmhos/cm

J = Estimated Quantity

Values in Bold exceed the COGCC Allowable Concentration

All parameters were found to be within the range set by the COGCC.

Table 3. Summary of Analytical Results for Organics for Pit Soil Samples

Parameter	Bledsoe Federal 1-29-5-44	COGCC Limit
TPH (1)	ND	500
Benzene	ND	0.17
Xylenes (total)	ND	175
Acenaphthene	ND	1,000
Anthracene	ND	1,000
Benzo(A)anthracene	ND	0.22
Benzo(B)fluoranthene	ND	0.22
Benzo(K)fluoranthene	ND	2.2
Benzo(A)pyrene	ND	0.022
Chrysene	ND	22
Dibenzo(A,H)anthracene	ND	0.022
Ethylbenzene	0.0033	100
Fluoranthene	ND	1,000
Fluorene	ND	1,000
Indeno(1,2,3,C,D)pyrene	ND	0.22
Napthalene	ND	23
Pyrene	ND	1,000
Toluene	ND	85
Xylenes (total)	ND	175

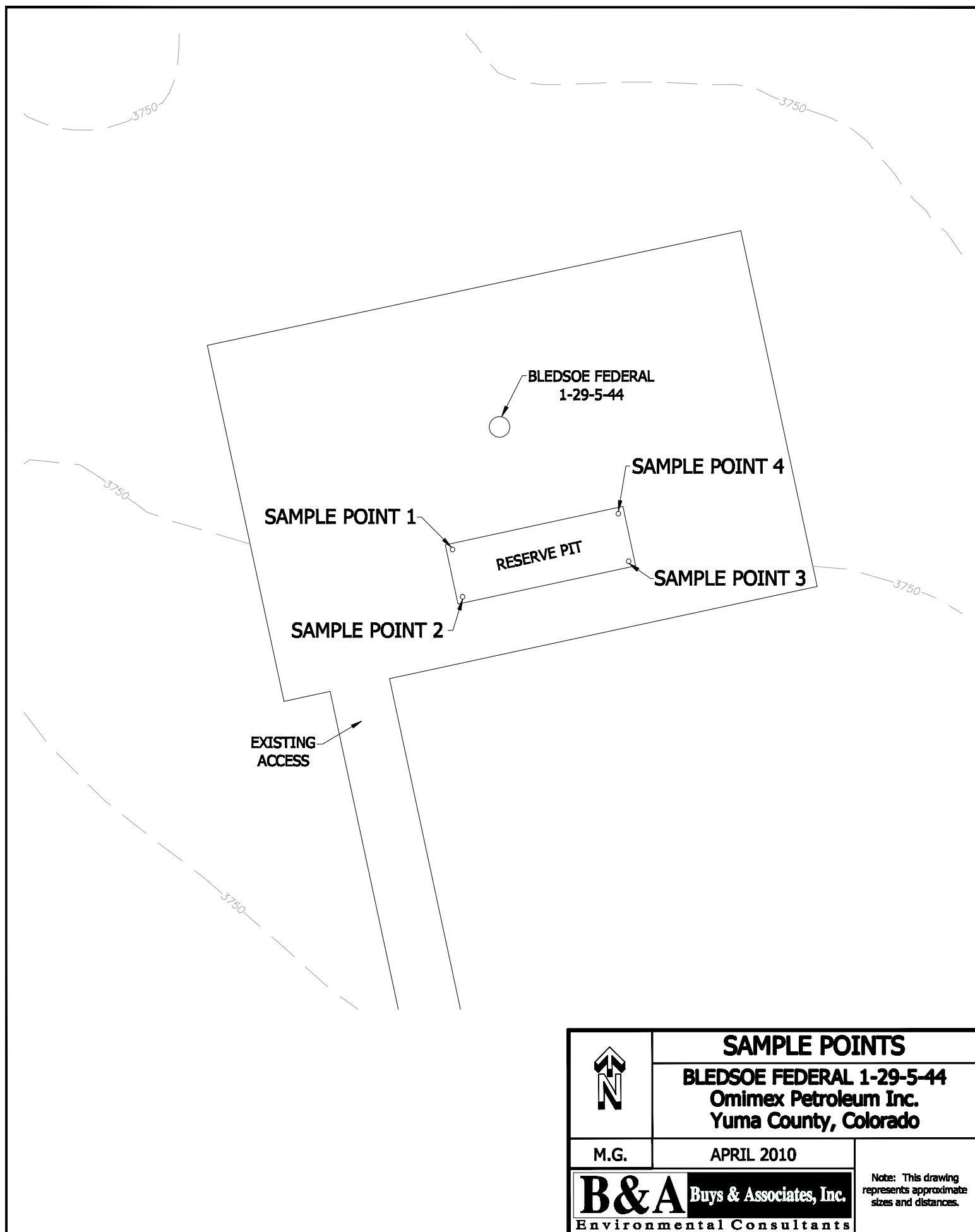
All measurements in mg/Kg


--- no applicable standard

ND – Not detected

(1) Combined result for Low Fraction (gasoline range) and High Fraction (Diesel range)

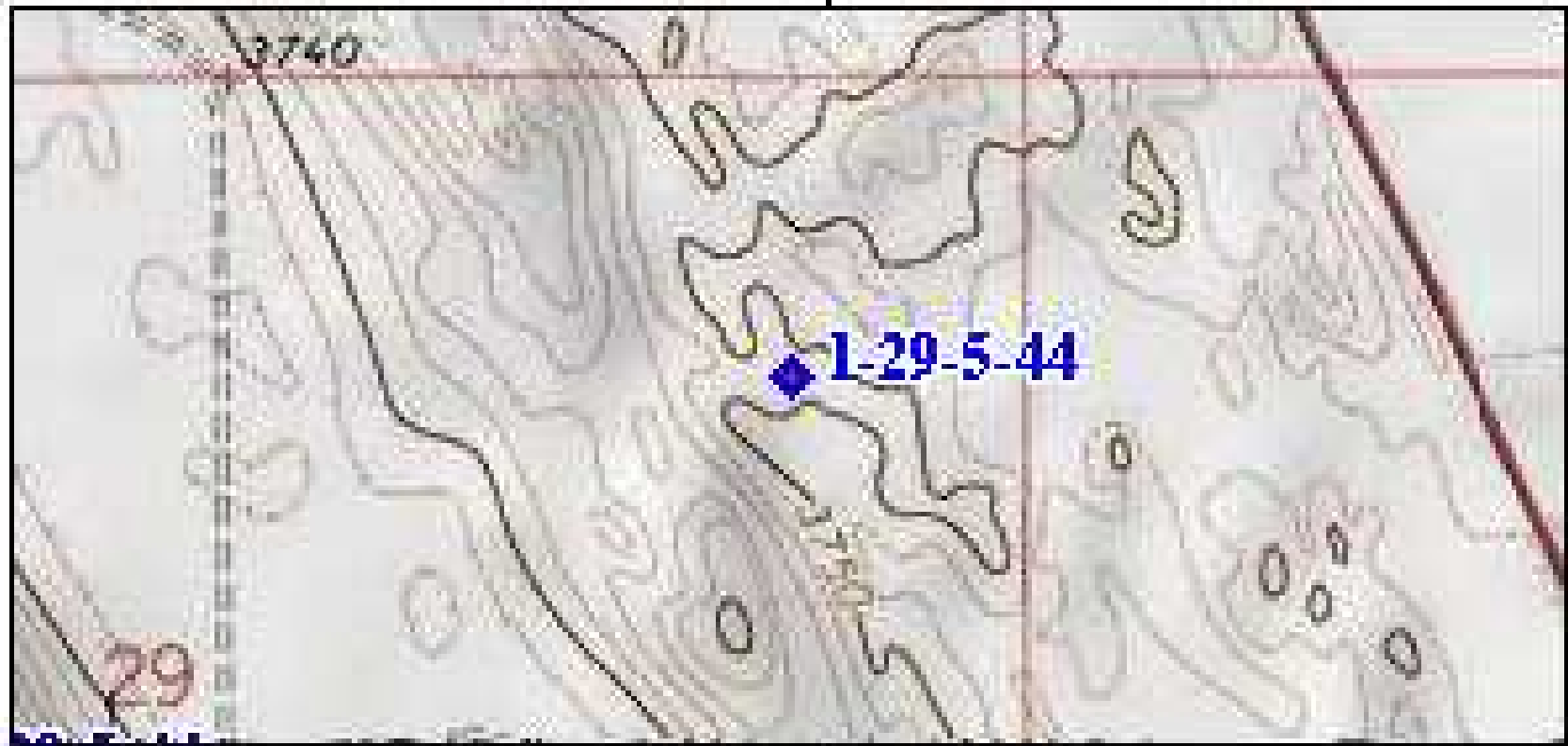
All organics were reported as not detected or were below the COGCC limits.



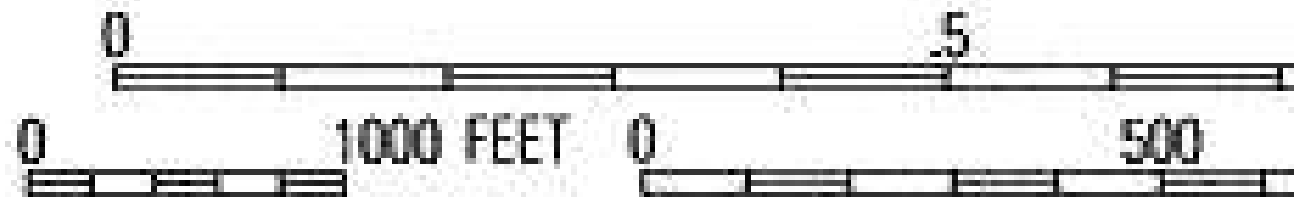
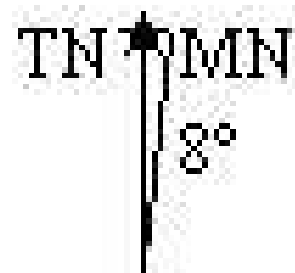
	<b>SAMPLE POINTS</b>	
	<b>BLED SOE FEDERAL 1-29-5-44</b> <b>Omimex Petroleum Inc.</b> <b>Yuma County, Colorado</b>	
<b>M.G.</b>	<b>APRIL 2010</b>	<b>Note: This drawing represents approximate sizes and distances.</b>
<b>B &amp; A Buys &amp; Associates, Inc.</b> <b>Environmental Consultants</b>		

Map printed on 04/13/10 from "Soil Sample 3-30"

WGS84 102°17'00" W



WGS84 102°17'00" W



Map created with TOPO!® ©2003 National Geographic (