



January 22, 2018

City of Longmont
385 Kimbark Street
Longmont, Colorado 80501

Attn: Mr. Jason Elkins
P: (303) 651-8310
E: Jason.Elkins@longmontcolorado.gov

**Re: Longmont 8-10K Well Site Background Evaluation
Longmont, Colorado
Terracon Project No. 22177046**

Dear Mr. Elkins:

Terracon Consultants, Inc. (Terracon) has prepared the following Background Evaluation for the above referenced site.

1.0 RESEARCH FINDINGS

The Longmont 8-10K well (API Number 05-123-18510) was drilled and completed in November 1994 under Colorado Oil and Gas Conservation Commission (COGCC) permit number 2085944, issued on August 5, 1994, for a new natural gas well. The well was completed to approximately 7952 feet below grade surface (bgs). The Operator of record on the well completion report is Calvin Petroleum Corporation of Fort Lupton, Colorado.

On September 3, 2008 an Application for Permit to recomplate and operate the Longmont 8-10K well was submitted to COGCC listing Top Operating Company (TOP) of Denver, Colorado as the operator of the well. As stated in the February 13, 2013 COGCC Field Inspection Form (667601133), it was noted that the plunger lift equipment at the wellhead was dripping oil at multiple points including the master valve. Oil stained soils and weeds within the tank berm required clean up. Unused equipment within the separator berm required removal. The corrective action suggested was to repair all leaks and clean up oil on wellhead. There is no Field Operation Notice on record stating that the corrective actions for inspection 667601133 were completed.

A Well Abandonment Report was submitted to COGCC on September 22, 2017. Final abandonment activities were initiated on October 25, 2017. The well abandonment report does not indicate if the flowline/pipeline associated with the well was abandoned per COGCC Rule 1103. A cast iron bridge plug (CIBP) with a cement cap was placed above perforations in the well casing. This cap was intended to isolate the perforations and prevent flow up the well from this



Terracon Consultants, Inc. 1242 Bramwood Place Longmont, Colorado 80501
P [303] 776 3921 F [303] 776 4041 terracon.com

Environmental



Facilities



Geotechnical



Materials

Well Site Background Evaluation

Longmont 8-10K ■ Longmont, Colorado

January 22, 2018 ■ Terracon Project No. 22177046



area of the formation. Cement plugs were placed above the surface casing shoe and near the surface, to prevent any fluids moving to the surface. There is no indication if the production casing was pulled based on the Well Abandonment Report (COGCC Document No. 401411121).

During November 2017, the COGCC performed a Field Inspection/Reclamation Inspection to document the status of well abandonment activities and final reclamation of the Longmont 8-10K well location. This inspection report indicates that final reclamation activities have been satisfactorily completed as of October 31, 2017, and TOP was in the process of getting equipment off the location.

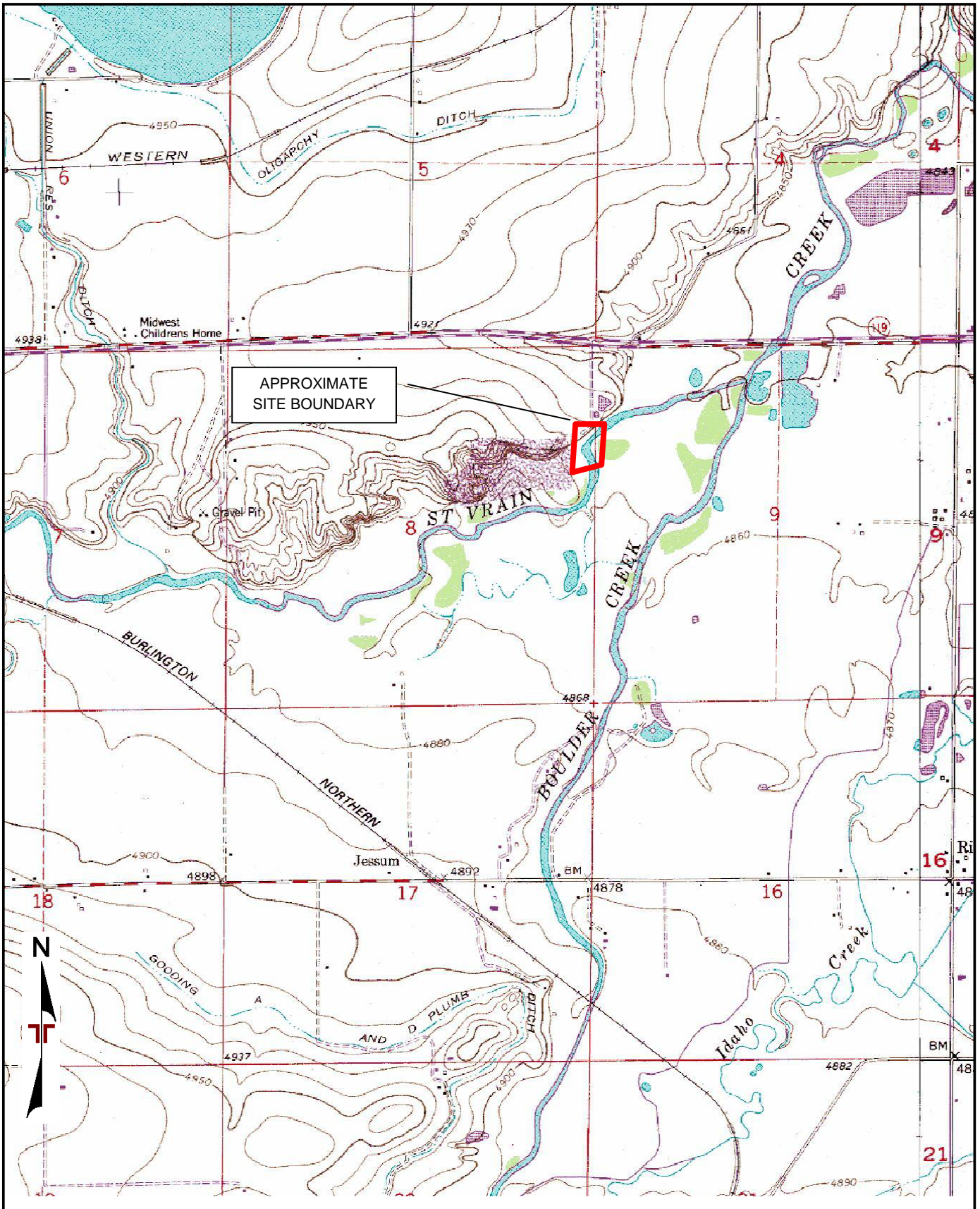
The land use of the well site during PA activities was undeveloped. The current land use of the well site remains undeveloped but there is commercial development approximately 2,500 feet to the north and 1,500 feet to the southwest.

The closest registered well (MH 37218 – City of Longmont) is approximately 1,200 feet northwest of the Longmont 8-10K wellhead location and is reported to be 12.3 feet deep.

The Longmont 8-10K well site was formally part of the City of Longmont's Annual Groundwater Quality Monitoring Project of active O&G wells. Terracon installed three groundwater monitoring wells at the site as part of this program in 2013 (Terracon Project No. 25127127). Due to the 500-year flood event occurred in November of 2014, the groundwater at the site dropped in elevation due to changes in lithology and riparian flow in the region. Since this time, annual measurements of the monitoring wells have observed the monitoring wells to be dry.

The City of Longmont is currently expanding the scope of work from the 2012 project to include assessing the condition of soil, groundwater, and soil gas at select locations. After PA activities at the site had been completed, Terracon installed three replacement monitoring wells, and two additional soil vapor points to reestablish sampling points for collection of groundwater and soil vapor for long-term quality monitoring.

FIGURES



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: LONGMONT, CO (1/1/1979) and GOWANDA, CO (1/1/1979).

Project Manager: ?MJS	Project No. 22177046
Drawn by: MJS	Scale: 1"=2,000'
Checked by: ?	File Name: 22177046
Approved by: JCG	Date: 01/16/2018

Terracon
 1242 Bramwood Pl
 Longmont, CO 80501-6100

TOPOGRAPHIC MAP
 Longmont 8-10K PA O&G Site
 Longmont, CO

Exhibit 1



*Oil & Gas Site Features Have Been Removed Form Property

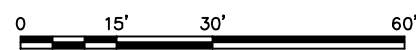


DIAGRAM IS INTENDED FOR GENERAL USE ONLY, AND IS NOT FOR CONSTRUCTION PURPOSES. LOCATIONS ARE APPROXIMATE.

Project Mngr: MJS	Project No. 22177046	 Consulting Engineers and Scientists 1242 BRAMWOOD PLACE LONGMONT, CO 80501 PH. (303) 776-3921 FAX. (303) 776-4041	SITE DIAGRAM	EXHIBIT No.
Drawn By: CPD	Scale: AS-SHOWN		LONGMONT 8-10K CITY OF LONGMONT LONGMONT, COLORADO	2
Checked By: MJS	File No. 22177046.DWG			
Approved By: DAB	Date: 01.10.2018			



LEGEND	
	MW-01 (80.70) MONITORING WELL WITH GROUNDWATER ELEVATION
	SB03/MW-03 (81.65) SOIL BORING / MONITORING WELL WITH GROUNDWATER ELEVATION
	SB-01/SVP-01 SOIL BORING / SOIL VAPOR POINT
80.10 — — —	ESTIMATED GROUNDWATER ELEVATION IN FEET ABOVE A COMMON DATUM
	ESTIMATED GROUNDWATER FLOW DIRECTION

*Oil & Gas Site Features Have Been Removed From Property

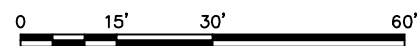


DIAGRAM IS INTENDED FOR GENERAL USE ONLY, AND IS NOT FOR CONSTRUCTION PURPOSES. LOCATIONS ARE APPROXIMATE.

Project Mgr: MJS	Project No. 22177046		POTENTIOMETRIC SURFACE MAP		EXHIBIT No.
Drawn By: CPD	Scale: AS-SHOWN		LONGMONT 8-10K CITY OF LONGMONT LONGMONT, COLORADO		3
Checked By: MJS	File No. 22177046.DWG				
Approved By: DAB	Date: 01.10.2018				
		1242 BRAMWOOD PLACE LONGMONT, CO 80501 PH. (303) 776-3921 FAX. (303) 776-4041			

SUPPORTING DOCUMENTATION

Receptor Worksheet
Longmont 8-10K Oil and Gas Well

Lease:	Attached				
Well Number:	8-10K				
API Number:	05-123-18510				
Operator	Top Operating Company				
Sensitive Receptor Detail					
Receptor	Distance	Gradient ²	Direction	Type of Receptor	Comments
Surface Water Body:	400 feet	Cross-Gradient	South	Creek	St. Vrain Creek
Surface Water Body:	200 feet	Down-Gradient	East	Pond/Lake	St Vrain Creek Pond
Structure:	0.45 mile	Up-Gradient	North	Teton Waters Ranch	3301 Lawrence St #3, Longmont, CO
Structure:	0.48 mile	Up-Gradient	North	Roof Check Inc	1610 Skyway Dr Longmont, CO
Structure:	0.55 mile	Up-Gradient	Northeast	Police Dept	Shooting Range
Structure:	0.58 mile	Cross-Gradient	South	Residential	Homes
Water Well ¹ :	0.22 mile	Cross-Gradient	Northwest	Observation Well (1999)	MH-37218

1) Water well information obtained from the Colorado Department of Water Resources online database.

2) Site specific gradient determined from Terracon's Limited Soil, Groundwater, and Soil Gas Investigation (December 2017).

* Additional site and receptor information obtained from Colorado Oil and Gas Conservation Commission (COGCC) online database.



Original

AR1970874

BL1

Form No. (12-1-80) Rev. 12/1/80

OIL AND GAS LEASE

THIS AGREEMENT, Entered into this the 3rd day of April 84 between Donald W. Baldrige and Adele A Baldrige, his wife 5325 E. Platte, Colorado Springs, Colorado 80916

Calvin Petroleum Corporation, 145 First St., Fort Lupton, CO 80621 hereinafter called lessor.

1. That know, for and in consideration of the sum of ten and more Dollars in hand paid and of the covenants and agreements hereinafter contained to be performed by the lessee, her heirs, assigns, executors, administrators and assigns...

RECEIVED

AUG 5 - 1994

See EXHIBIT "A" attached hereto and made a part hereof See EXHIBIT "B" attached hereto and made a part hereof for additional provisions B 1033 REC 01970874 06/18/84 14:33 \$12.00 1/004 F 2291 MARY ANN FEUERSTEIN CLERK & RECORDER WELD CO, CO

COLORADO OIL & GAS CON. COMM.

2. It is agreed that this lease shall remain in full force for a term of three (3) years from this date... 3. In consideration of the premises the said lease covenants and agrees: To deliver to the creator of lessee, free of cost, in the pipe line to which lessee may connect his wells... 4. The lease shall pay lessee as royalty on gas marketed from each well...

16.67

5. If operations for the drilling of a well for oil or gas are not commenced on said land on or before the 3rd day of April 85, this lease shall terminate as to both parties, unless the lessee shall on or before said date pay or tender to the lessor...

6. If the estate of either party herein is assigned the privilege of retaining an whole or in part is expressly affirmed, the covenants hereof shall extend to the assignee, executor, administrator, and assigns... 7. It is hereby agreed that in the event this lease shall be assigned as to a part or as to parts of the above described land and the holder of interest in any such part or parts shall make default in the payment of the production...

8. Lessee is hereby given the right at its option, at any time and from time to time, to pool or unitize all or any part or parts of the above described land with other lands, lease or leases in the immediate vicinity thereof, such pooling to be into units not exceeding the minimum size least one acre... 13. This lease and all its terms, conditions and stipulations shall extend to, and be binding on each of the parties who sign this lease, regardless of whether such lease is named above and regardless of whether it is signed by any of the other parties herein named as lessors.

IN WITNESS WHEREOF, we sign the day and year first above written. Witness: Donald W. Baldrige = Adele A. Baldrige

Witness: Donald W. Baldrige Adele A Baldrige 5325 E. Platte - 444 - 2705

STATE OF Colorado

COUNTY OF El Paso

Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
Nebraska, North Dakota, South Dakota

ACKNOWLEDGMENT - INDIVIDUAL

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 23rd

day of April 1984 personally appeared Donald W. Baldrige and Adele A. Baldrige,
his wife



to me known to be the identical person 5 described in and who executed
the instrument of writing and acknowledged to me that they duly executed the same as their free
and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

April 19, 1985

Donald W. Baldrige
Notary Public
Address: Colorado Springs, Colo.

RECEIVED

AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

STATE OF _____

COUNTY OF _____

Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
Nebraska, North Dakota, South Dakota

ACKNOWLEDGMENT - INDIVIDUAL

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this _____

day of _____, 19____ personally appeared _____

and _____
to me known to be the identical person _____, described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.

My Commission Expires _____

Notary Public.

Address: _____

STATE OF _____

COUNTY OF _____

ACKNOWLEDGMENT (For use by Corporation)

On this _____ day of _____, A.D. 19____, before me personally
appeared _____, to me personally known, who, being by
me duly sworn, did say that he is the _____ of _____

and that the seal affixed to said instrument is the corporate seal of
said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said
_____ acknowledged said instrument to be free act and deed of said corporation.

Witness my hand and seal this _____ day of _____, A.D. 19____

Notary Public.

Address: _____

(SEAL)

My Commission expires _____

No. _____	FROM _____	TO _____
Date of _____ 19____	No. Acres _____	County _____
Term _____	This instrument was filed for record on the _____ day of _____ 19____, at _____ o'clock _____ M., and duly recorded in Volume _____ Page _____ of the records of this office.	
By _____	County Clerk	Deputy _____

When recorded return to _____
Clerk of the County Commission
to first street
Boulder, Colorado 80502

EXHIBIT "A"

B 1033 REC 01970874 06/18/84 14:33 \$12.00 3/004
P 2293 MARY ANN FEUERSTEIN CLERK & RECORDER WELD CO, CO

Attached to and made a part hereof that certain oil and gas lease by and between DONALD W. BALDRIDGE and ADELE A. BALDRIDGE, his wife as Lessors and CALVIN PETROLEUM CORPORATION, as Lessee dated April 3, 1984.

DESCRIPTION:

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AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

A tract of land located in parts of the $\frac{E}{4}$ of Section 5, and the $\frac{W}{4}$ of Section 8, Township 2 North, Range 66 West, of the 6th P.M., said tract being more particularly described as follows: BEGINNING at a point on the East line of said Section 8 from whence Northeast corner of said Section 8 bears N $00^{\circ} 00' 00''$ E., 31.50 feet and with all other bearings contained herein relative thereto; thence S., $00^{\circ} 00' 00''$ E 1143.32 feet along said East line of Section 8; thence S $53^{\circ} 10' 00''$ W 213.37 feet; thence N $88^{\circ} 40' 19''$ W 1136.31 feet along an existing fence line; thence N $00^{\circ} 00' 00''$ E, 1390.93 feet to a point on the approximate South right of way line of Colorado State Highway 119; thence along a line lying approximately 0.5 feet South of and parallel to the South right of way fence of said Colorado State Highway 119, the following courses and distances: 338.63 feet along the arc of a curve to the right, said arc being subtended by a chord bearing S $85^{\circ} 09' 55''$ E, 388.34 feet; thence S $81^{\circ} 19' 04''$ E, 366.26 feet; thence S $82^{\circ} 27' 57''$ E, 238.24 feet to the POINT OF CURVE of a curve to the left; thence 338.53 feet along the arc of said curve, said arc being subtended by a chord bearing S $84^{\circ} 04' 45''$ E, 338.72 feet to the POINT OF BEGINNING.

SIGNED FOR IDENTIFICATION

Donald W. Baldrige
Donald W. Baldrige

Adale A. Baldrige
Adale A. Baldrige



EXHIBIT "B"

Exhibit B to Oil and Gas Lease
Date: April 3, 1984
Lessors: Donald W. Baldrige and
Adele A. Baldrige
Lessee: Calvin Petroleum Corporation

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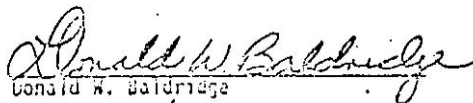
COLO. OIL & GAS CONS. COMM.

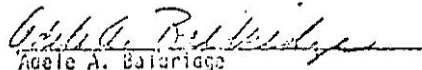
The foregoing oil and gas lease is hereby made expressly subject to the following terms, conditions and agreements which shall govern in the event there is any conflict between the terms contained on this Exhibit B and the printed provisions of the oil and gas lease.

1. Non-development lease. This is a non-development lease and the parties expressly understand and agree that no activities of any sort shall be conducted on the lease premises nor shall any portion of the leased premises be used for any purpose, without the prior written consent of the Lessors and it is expressly understood and agreed that the Lessors may withhold that consent with or without reason or explanation and entirely at the Lessors' sole and uncontrolled discretion.

2. Royalties. Whenever a royalty to the Lessors is provided for in this lease, specifically in paragraphs three and four of the printed portion of this Lease, the royalty shall be 16.67%.

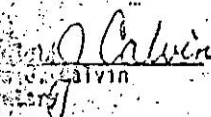
Dated: APRIL 23, 1984


Donald W. Baldrige

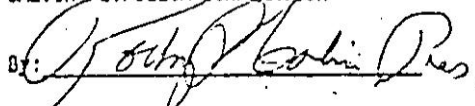

Adele A. Baldrige

ATTEST:




Calvin

CALVIN PETROLEUM CORPORATION

By: 

Recorded at 8:00 o'clock AM MAY 29 1994

Rec. No. 1826006 Manufacturing
4-1 of

State of Colorado, Weld County Clerk & Recorder

Form No. (Producers)
Kan., Okla. & Colo., 1977

C Rev 1974 OIL AND GAS LEASE

THIS AGREEMENT, Entered into this the 7th day of February, 19 80
between C.P. Richardson, Leo F. Knago, and Betty Jo Secor
P.O. Box 717,
Longmont, CO 80501
and Buddy Baker, 1429 Larimer, Denver, CO 80202

1. That lessor, for and in consideration of the sum of Ten and no/100 Dollars in hand paid and of the covenants and agreements hereinafter contained to be performed by the lessee, has this day granted, leased, and let and by these presents does hereby grant, lease, and let exclusively unto the lessee the hereinafter described land, and with the right to utilize this lease or any part thereof with other oil and gas leases as to all or any part of the lands covered hereby as hereinafter provided, for the purpose of carrying on geological, geophysical and other exploratory work, including core drilling, and the drilling, mining, and operating for, producing, and saving all of the oil, gas, casinghead gas, casinghead gasoline and all other gases and their respective constituent vapors, and for constructing roads, ~~and for the operation of the land and for the construction of buildings and other structures on the land and for the operation of the land and for the construction of buildings and other structures on the land~~ and for the operation of the land and for the construction of buildings and other structures on the land with any necessary rights therein being situated in the County of Weld State of Colorado, and described as follows:

TOWNSHIP 2North-RANGE 68West
Sections 5 and 8: Described as follows: See attached addendum:

The West 43 acres of that tract of land described and recorded in book 677 as reception No. 1599433, and being located in parts of Sections 5 and 8, T. 2 N., R. 68 W. of the 6th P.M., and being more particularly described as follows: Beginning at a point on the East line of the Northeast quarter of said Section 8 from which the Northeast corner of said Section 8 bears North a distance of 31.5 feet; thence continuing along said East line, South a distance of 1143.82 feet; all bearings used herein being relative thereto; thence South 58°10' West a distance of 251.7 feet to a point on the South line of the North 1/2 of the North 1/2 of said Section 8; thence along said South line North 88° 38' West a distance of 2469.31 feet; thence North 01° 22' East a distance of 1347.06 feet to a point on the South line of State Highway No. 119; thence along the said South line of said highway by the 5 following courses and distances; North 37°54'40" East, 497.75 feet; along the arc of a curve to the right the chord of which bears South 86°42' East 212.79 feet more or less to the point of beginning, subject to any existing easements or rights of way, together with each and every right and access to the premises from Colorado Highway 119 as granted by the State Highway Department as recorded in the records of Weld County.

RECEIVED
AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

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TRACT
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AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

1826006

4-2

and explaining 43.00 October 21, 1981

BOOK 904

11-17-77 0001

2. It is agreed that this lease shall remain in full force for a term of Five (5) years from this date and as long thereafter as oil or gas, or either of them, is produced from said land (or from lands with which said land is consolidated) or the premises as being developed or operated.

3. In consideration of the premises the said lessee covenants and agrees: To deliver to the credit of lessor, free of cost, in the pipe line to which lessee may connect his wells, the equal and exact (1/8) part of all oil produced and saved from the leased premises.

4. The lessee shall monthly pay lessor as royalty on gas marketed from each well where gas only is found, one eighth (1/8) of the proceeds if sold at the well, or if marketed by lessee off the leased premises, then one eighth (1/8) of its market value at the well. The lessee shall pay the lessor, (1/8) one eighth (1/8), of the proceeds received by the lessee from the sale of casinghead gas, produced from any oil well and well on the leased premises, at the mouth of the well, computed at the prevailing market price, of the casinghead gas, produced from any oil well and well on the leased premises for any purpose or used on the leased premises by the lessee for purposes other than the development and operation thereof. Lessor shall have the privilege at his own risk and expense of using gas from any gas well on said land for stoves and inside lights in the principal dwelling located on the leased premises by making his own connections thereon.

5. Where gas from a well or wells, capable of producing gas only, is not sold or used for a period of one year, lessee shall pay or tender as royalty, an amount equal to the delay rental as provided in paragraph (5) hereof, payable annually on the anniversary date of this lease (beginning the end of each such year during which such gas is not sold or used, and while said royalty is so paid or tendered this lease shall be held as a producing property under paragraph numbered two hereof

6. If operations for the drilling of a well for oil or gas are not commenced on said land on or before the 21 day of October 1981, this lease shall terminate as to both parties, unless the lessee shall on or before said date pay or tender to the lessor or for the lessor's credit in

the First National Bank at Longmont, CO 80501, or its successors, when Bank and its successors are the lessor's agent and shall continue as the depository of any and all sums payable under this lease, regardless of changes of ownership in

said land or in the oil and gas or in the rentals to accrue hereunder, the sum of Forty three and no/100 dollars, which shall operate as a rental and cover the privilege of deferring the commencement of operations for drilling, for a period of one year. In case lessee and upon like payments or tenders the commencement of operations for drilling may further be deferred for the periods successively. All payments or tenders may be made by check or draft of lessee or any assignee thereof, mailed or delivered on or before the rental paying date, either to the lessor or assignee or to said depository bank, and it is understood and agreed that the consideration first recited herein, the down payment, covers not only the privilege granted to the date when said first rental is payable as aforesaid, but also the lessee's option of extending that period as above and all other rights conferred. Lessee may at any time execute and deliver to lessor, or place of record, a release or releases covering any portion or portions of the above described premises and thereby surrender this lease as to such portion or portions and be released of all obligations as to the acreage surrendered, and thereafter the rentals payable hereunder shall be reduced in the proportion that the acreage covered hereon bears to the total acreage surrendered or released.

7. Should the first well drilled on the above described land be a dry hole, then, and in that event, if a second well is not commenced on said land within twelve months from expiration of the last rental period for which rental has been paid, this lease shall terminate as to both parties, unless the lessee on or before the expiration of said five months shall resume the payment of rentals to the same amount and in the same manner as hereinbefore provided. And it is agreed that upon the resumption of the payment of rentals, as above provided, that the lessor's obligation hereunder, governing the payment of rentals and the effect thereof shall continue in force just as though there had been no interruption in the rental payments.

8. If said lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties and rentals herein provided shall be paid the lessor only in the proportion which his interest bears to the whole and considered by the lessee, such rental shall be increased at the next succeeding rental anniversary after any reversion occurs to cover the interest so acquired.

9. The lessee shall have the right to use, free of cost, gas, oil and water found on said land for its operations thereon, except water from the wells of the lessor. When required by lessee, the lessee shall bury to true line below plow depth and shall pay for damage caused by its operations to growing crops on said land. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of the lessor. Lessee shall have the right at any time during, or after the expiration of, this lease to remove all machinery, fixtures, houses, buildings and other structures placed on said premises, including the right to draw and remove all casing. Lessee agrees, upon the completion of any test as a dry hole or upon the abandonment of any producing well, to restore the premises to their original contour as near as practicable and to remove all installations within an ascertainable time.

10. If the estate of either party hereto is assigned (and the privilege of assigning in whole or in part is expressly allowed) the covenants hereof shall extend to the heirs, devisees, executors, administrators, successors, and assigns, but no change of ownership in the land or in the rentals or royalties or any sum due under this lease shall be binding on the lessee until it has been furnished with either the original recorded instrument of conveyance or a duly certified copy thereof or a certified copy of the will of any deceased owner and of the probate thereof, or certified copy of the proceedings showing appointment of an administrator for the estate of any deceased owner, whichever is appropriate, together with all original recorded instruments of conveyance or duly certified copies thereof necessary in showing a complete chain of title back to lessor to the full interest claimed, and all advance payments of rentals made hereunder before receipt of said documents shall be binding on any direct or indirect assignee, grantee, devisee, administrator, executor, or heir of lessor.

11. It is hereby agreed that in the event this lease shall be assigned as to a part or as to parts of the above described land and the holder or owners of any such part or parts shall make default in the payment of the proportionate part of the rent due from him or them, such default shall not operate to defeat or affect this lease insofar as it covers a part of said land upon which the lessee or any assignee hereof shall make due payment of said rental.

12. Lessor hereby warrants and agrees to defend the title to the land herein described and agrees that the lessee, at its option, may pay any discharge in whole or in part any taxes, mortgages, or other liens existing, levied, or assessed on or against the above described lands and, in event it exercises such option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax or other lien, any royalty or rentals accruing hereunder.

13. Notwithstanding anything in this lease contained to the contrary, it is expressly agreed that if lessee shall commence operations for drilling at any time while this lease is in force, this lease shall remain in force and its terms shall continue so long as such operations are prosecuted and, if production results therefrom, then as long as production continues.

14. If within the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided operations for the drilling of a well shall be commenced before or on the next ensuing rental paying date or, provided lessee begins or resumes the payment of rentals in the manner and amount hereinbefore provided. If, after the expiration of the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided lessee resumes operations for reworking or drilling a well within sixty (60) days from such cessation and this lease shall remain in force during the prosecution of such operations and, if production results therefrom, then as long as production continues.

15. Lessee is hereby given the right at its option, at any time and from time to time, to pool or unitize all or any part or parts of the above described land with other land, lease, or leases in the immediate vicinity thereof, such pooling to be into units not exceeding the minimum size used on which a well may be drilled under laws, rules, or regulations in force at the time of such pooling or unitization, provided, however, that such units may exceed such minimum by not more than ten acres if such excess is necessary in order to conform to ownership subdivisions of lease lines. Lessee shall exercise such option, as to each described unit, by executing and recording an instrument identifying the unitized area. Any well drilled or operations commenced on any part of each such unit shall be considered a well drilled or operations conducted under this lease, and there shall be allocated to the portion of the above described land included in any such unit such proportion of the actual production from all wells on such unit as said well's interest, if any, in of the above described land included in any such unit bears to the entire acreage of such unit. And it is understood and agreed that the production so allocated such portion, computed on an acreage basis, bears to the entire acreage of such unit. And it is understood and agreed that the production so allocated shall be considered for all purposes, including the payment or delivery of royalty, to be the entire production from the portion of the above described land included in such unit in the same manner as though produced from the above described land under the terms of this lease.

16. This lease and all its terms, conditions and stipulations shall extend to, and be binding on each of the parties who signs this lease, regardless of whether such lease is named above and regardless of whether it is signed by any of the other parties herein named as lessors. This lease may be signed in counterparts, each to have the same effect as the original.

IN WITNESS WHEREOF, we sign the day and year first above written.

Witness
C.P. Richardson
C.P. Richardson SS# 524.16.6858

Leo F. Knapp
Leo F. Knapp SS# 524.22.0981
Betty Jo Secor
Betty Jo Secor SS# 522.98.7511

STATE OF Colorado
COUNTY OF Wald

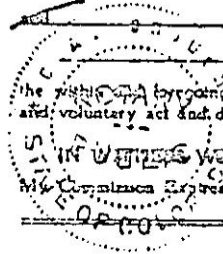
Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

RECEIVED

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 10th
day of February, 1980, personally appeared G. P. Richardson, Betty Jo Secor, Leo P. Knago

AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.



to me known to be the identical person described in and who executed
the within and foregoing instrument of writing and acknowledged to me that they duly executed the same as their
free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.
My Commission Expires August 12, 1981
G. P. Richardson
Notary Public.

STATE OF _____
COUNTY OF _____

Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this _____
day of _____, 19____, personally appeared _____

_____ to me known to be the identical person described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.
My Commission Expires _____

Notary Public.

State of _____
County of _____

ACKNOWLEDGMENT (For use by Corporation)

On this _____ day of _____, A. D. 19____, before me personally
appeared _____, to me personally known, who, being by
me duly sworn, did say that he is the _____ of _____

_____ and that the seal affixed to said instrument is the corporate seal of said corpora-
tion and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said
_____ acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal this _____ day of _____, A. D. 19____.

Notary Public.

(SEAL)

My Commission expires _____

FROM _____ TO _____
_____ 19____
County _____
was filed for record on the _____ 19____ at _____
M., and duly recorded in _____
Page _____ of the records of this office.
County Clerk _____
Dignity _____
To be recorded return to _____
BUDDY BAKER
1421 LABAER
OGUNGER CO. 80202

800* 504

1826006
RECEIVED
4-4
AUG 5 - 1994

ADDENDUM

COLO. OIL & GAS CONS. COMM.

This addendum attached to and made a part of that certain Oil and Gas lease dated February 7, 1980 by and between C.P. Richardson, Leo F. Knago and Betty Jo Secor, lessors, and Buddy Baker, lessee, covering the following described lands:

The West 43 acres of that tract of land described and recorded in book 677 as reception No. 1599433, and being located in parts of Sections 5 and 8, T. 2 N., R. 68 W. of the 6th P.M., and being more particularly described as follows: Beginning at a point on the East line of the Northeast quarter of said Section 8 from which the Northeast corner of said Section 8 bears North a distance of 31.5 feet; thence continuing along said East line, South a distance of 1143.82 feet; all bearings used herein being relative thereto; thence South 53°10' West a distance of 251.7 feet to a point on the South line of the North 1/2 of the North 1/2 of said Section 8; thence along said South line North 88° 38' West a distance of 2469.31 feet; thence North 01° 22' East a distance of 1347.06 feet to a point on the South line of State Highway No. 119; thence along the said South line of said highway by the 5 following courses and distances; North 87°54'40" East, 487.75 feet; along the arc of a curve to the right the chord of which bears South 88°42' East 212.79 feet more or less to the point of beginning, subject to any existing easements or rights of way, together with each and every right and access to the premises from Colorado Highway 119 as granted by the State Highway Department as recorded in the records of Weld County.

1. It is hereby agreed that lessee or its assigns will be prohibited from proposing a drill site on subject lands.
2. It is hereby agreed that lessor or its assigns shall grant lessee or its assigns the right of ingress or egress on subject lands.

C.P. Richardson
C.P. Richardson

Leo F. Knago
Leo. F. Knago

Betty Jo Secor
Betty Jo Secor

AR1981767

CORRECTION OF DESCRIPTION IN LEASE

B 1043 REC 01981769 09/14/84 15:57 \$9.00 AUG 5 - 1984
P 1482 MARY ANN FEUERSTEIN CLERK & RECORDER WZLD CO, CO

RECEIVED

COLO. OIL & GAS COM. COMM

WHEREAS, we the undersigned, as lessors, did under date of February 7, 1980,
make and execute unto GUDDY BAYER as lessee,
our certain oil and gas lease covering certain lands owned by us, situated in Weld County,
Colorado State, and described in said lease as follows, to-wit:

See EXHIBIT "A" attached hereto and made a part of hereof.

*Said lease was recorded in Book 904, Reception No 1826006
of the records of Weld County, Colorado.

AND WHEREAS, said description is incomplete and indefinite, and the lands intended to be covered
by said lease are more accurately described as follows, to-wit:

See EXHIBIT "B" attached hereto and made a part hereof

In said County and State:

NOW, THEREFORE, in consideration of the premises, and for the purpose of making the said lease
more definite and certain in respect to the identity of the lands intended to be covered thereby, we do
hereby declare that it was and is our intention to lease for oil and gas purposes the identical tract of land
last above described; and we hereby amend said lease in respect to the description of the lands included
therein, as aforesaid, and ratify and adopt the same as so amended.

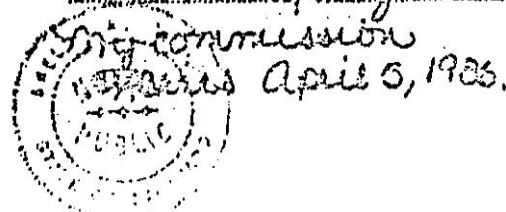
WITNESS our hands and seals this 8th day of May June 4, A. D. 1984

C.P. Richardson (Seal)
C.P. Richardson owner (Seal)
..... (Seal)
..... (Seal)

STATE OF Colorado
COUNTY OF Boulder
a Notary Public
ACKNOWLEDGMENT
I, Shelly A. Thomas
in and for said County, in the
State aforesaid, DO HEREBY CERTIFY THAT C.P. Richardson

personally known to me to be the same person whose name is
subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged
that he signed, sealed and delivered the said instrument as his free
and voluntary act, for the uses and purposes therein set forth.

GIVEN Under my hand and seal, this 4th day of June, A. D. 1984



Shelly A. Thomas
401 Main St.
Longmont, CO 80501

RECEIVED

AUG 5 - 1994

EXHIBIT "A"

Attached to and made a part of that certain Correction of Description in Lease dated May 8, 1984.

COLO. OIL & GAS CONS. COMM.

TOWNSHIP 2 North - Range 68 West
Sections 5 and 8; Described as follows:

The West 43 acres of that tract of land described and recorded in Book 677 at Reception No. 1599433, and being located in parts of Sections 5 and 8, Township 2 North, Range 68 West of the 6th P.M., and being more particularly described as follows: Beginning at a point on the East line of the Northeast quarter of said Section 8 from which the Northeast corner of said Section 8 bears North a distance of 31.5 feet; thence continuing along said East line, South a distance of 1143.92 feet; all bearings used herein being relative thereto; thence South 58° 10' West a distance of 251.7 feet to a point on the South line of the North 1/2 of the North 1/2 of said Section 8; thence along said South line North 88° 38' West a distance of 2469.31 feet; thence North 01° 22' East a distance of 1347.06 feet to a point on the South line of State Highway No. 119; thence along the said South line of said highway by the 5 following courses and distances; North 87° 54' 40" East, 487.75 feet; along the arc of a curve to the right the cord of which bears South 88° 42' East 212.79 feet more or less to the point of beginning, subject to any existing easements or rights of way, together with each and every right and access to the premises from Colorado Highway 119 as granted by the State Highway Department as recorded in the records of Weld County.

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AUG 5 - 1984

EXHIBIT "B"

Attached to and made a part of that certain Correction of Description in Lease dated May 8, 1984

COLO. OIL & GAS COM. COMM.

TOWNSHIP 2 North - Range 68 West
Sections 5 and 8; Described as follows:

The West 43 acres of the following described tract of land: That part of the North 1/2 of the Northeast 1/4 of Section 8, and that part of the South 1/2 of the Southeast 1/4 of Section 5, all in Township 2 North, Range 68 West of the 6th P.M., Weld County, Colorado, being more particularly described as follows: Beginning at a point on the East line of the Northeast 1/4 of said Section 8 from which the Northeast corner of said Section 8 bears North, a distance of 31.5 feet; thence continuing along said East line, South a distance of 1143.82 feet; all bearings used herein being relative thereto; thence South 58 degrees 10' West a distance of 251.7 feet to a point on the South line of the North 1/2 of the North 1/2 of said Section 8; thence along said South line North 88 degrees 38' West a distance of 2469.31 feet; thence North 01 degrees 22' East a distance of 1347.00 feet to a point on the South line of State Highway No. 119; thence along the said South line of said highway by the five (5) following courses and distances:

North 87 degrees 54' 40" East, 847.75 feet; thence along the arc of a curve to the right the cord of which bears South 88 degrees 03' East, 792.58 feet;

South 81 degrees 47' East, 749.43 feet;

South 83 degrees 47' East, 57.7 feet;

South 89 degrees 42' East, 212.79 feet more or less to the POINT OF BEGINNING

AR1951952

B 1043 REC 01981953 09/17/84 16:43 \$3.00 1/00:
P 1827 MARY ANN FEUERSTEIN CLERK & RECORDER WELD CO, CO.

AMENDMENT TO OIL AND GAS LEASE

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AUG 5 - 1994

Whereas C. P. Richardson, Leo F. Knago, and Betty Jo Secor **COLO. OIL & GAS CONS. COMM.**
entered into an Oil and Gas Lease with Buddy Baker as Lessee,
dated February 7, 1980, recorded May 29, 1980, in Book 904,
at Reception Number 1826006, covering lands in the N $\frac{1}{4}$ of
Section 8 and the S $\frac{1}{4}$ of Section 5, Township 2 North, Range 68
West, of the 6th P.M., Weld County, Colorado,

and whereas C. P. Richardson is now the sole owner of the
leased lands,

and whereas the subject Oil and Gas Lease contained the
following provision in its Addendum, "1. It is hereby agreed
that the lessee or its assigns will be prohibited from
proposing a drill site on subject lands."

and whereas C. P. Richardson is desirous of amending said Oil
and Gas Lease to allow for drilling on the subject lands.

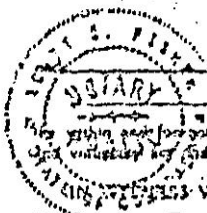
Now, therefore, C. P. Richardson does hereby amend the terms
of said Oil and Gas Lease and does delete Paragraph 1 of the
Addendum to subject Oil and Gas Lease, and does further amend
said Oil and Gas Lease to allow for drilling activities on
the subject lands.

IN WITNESS WHEREOF, we sign this 31st day of August, 1984

C. P. Richardson
C. P. Richardson

STATE OF Colorado)
COUNTY OF Boulder) ss. Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 31st
day of August, 1984, personally appeared C. P. Richardson



_____ to me known to be the identical person _____ described to me and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ he _____ duly executed the same as _____ for
the purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this 5th day and year last above written
My Commission Expires September 2, 1986
1685 C South Blackhawk Way, Aurora, CO 80012 Scott B. Fisher Notary Public.

WHEREAS, we the undersigned, as lessors, did under date of February 7, 1980,
make and execute unto Suddy Baker as lessee,
our certain oil and gas lease, covering certain lands owned by us, situated in Weld County,
Colorado State, and described in said lease as follows, to-wit:

FOR DESCRIPTION SEE PARAGRAPH "A" OF EXHIBIT "A" ATTACHED HERETO AND MADE A PART
HEREOF

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AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

AND WHEREAS, said description is incomplete and indefinite, and the lands intended to be covered
by said lease are more accurately described as follows, to-wit:

FOR DESCRIPTION SEE PARAGRAPH "B" OF EXHIBIT "A" ATTACHED HERETO AND MADE A PART
HEREOF

in said County and State:

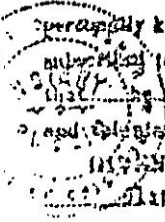
NOW, THEREFORE, in consideration of the premises, and for the purpose of making the said lease
more definite and certain in respect to the identity of the lands intended to be covered thereby, we do
hereby declare that it was and is our intention to lease for oil and gas purposes the identical tract of land
last above described; and we hereby amend said lease in respect to the description of the lands included
therein, as aforesaid, and ratify and adopt the same as so amended.

WITNESS our hands and seals this 31st day of August, A. D. 19 84.

X C. P. Richardson (Seal)
..... (Seal)
..... (Seal)
..... (Seal)

STATE OF Colorado ACKNOWLEDGMENT
COUNTY OF Boulder I, Scott E. Fisher, a
Notary Public, in and for said County, in the
State aforesaid, DO HEREBY CERTIFY THAT C. P. Richardson

personally known to me to be the same person whose name is
subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged
that he signed, sealed and delivered the said instrument as his free
and voluntary act, for the uses and purposes therein set forth.
Under my hand and official seal, this
day of August, A. D. 19 84



My commission expires September 2, 1986

Scott E. Fisher
Address: 1685 C. S. Blackhawk Way
Aurora, CO 80012

EXHIBIT "A" attached to and made a part of that certain Correction of Description In Lease, dated August 31, 1984 by and between C.P. Richardson, as Lessor, and Buddy Baker, as Lessee.

Paragraph "A"

Township 2 North, Range 68 West, 6th P.M.

A portion of Sections 5 and 8 being more particularly described as follows:
Beginning at a point on the East line of the Northeast Quarter of said Section 8 from which the Northeast corner of said Section 8 bears North a distance of 31.5 feet;

Thence continuing along said East line, South a distance of 1143.82 feet; all bearings used herein being relative thereto;

Thence South $58^{\circ}10'00''$ West a distance of 251.7 feet to a point on the South line of the North 1/2 of the North 1/2 of said Section 8;

Thence along said South line North $88^{\circ}38'00''$ West a distance of 2469.31 feet;

Thence North $01^{\circ}22'00''$ East a distance of 1347.06 feet to a point on the South line of State Highway No. 119;

Thence along the said South line of said Highway No. 119 by the 5 following courses and distances; North $87^{\circ}54'40''$ East, 487.75 feet; along the arc of a curve to the right the chord of which bears South $88^{\circ}42'$ East 212.79 feet more or less to the point of beginning.

Paragraph "B"

Township 2 North, Range 68 West, 6th P.M.

That part of the N/2 of the NE/4 of Section 8, and that part of the S/2 of the SE/4 of Section 5 being more particularly described as follows:

Beginning at a point on the East line of the NE/4 of said Section 8 from which the Northeast corner of said Section 8 bears North, a distance of 31.5 feet;

Thence continuing along said East line, South a distance of 1143.82 feet;

all bearings used herein being relative thereto;

Thence South $58^{\circ}10'00''$ West a distance of 251.7 feet to a point on the South line of the N/2 of the N/2 of said Section 8;

Thence along said South line North $88^{\circ}38'00''$ West a distance of 2469.31 feet;

Thence North $01^{\circ}22'00''$ East a distance of 1347.06 feet to a point on the South line of State Highway No. 119;

Thence along the said South line of said State Highway No. 119 by the five following courses and distances:

North $87^{\circ}54'40''$ East, 487.75 feet; along the arc of a curve to the right, the chord of which bears South $88^{\circ}01'00''$ East, 792.58 feet;

South $81^{\circ}47'00''$ East, 749.48 feet;

South $83^{\circ}47'00''$ East, 57.7 feet;

South $88^{\circ}42'00''$ East, 212.79 feet more or less to the Point of Beginning.

Signed for Identifications:

C.P. Richardson
C.P. Richardson

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AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

Recorded at 8:00 o'clock on July 21 1979
Rec. No. 131-4785
4-1
State of Colorado, Weld County Clerk & Recorder

EXHIBIT A

Form No. (Producers) C Rev. 1974 OIL AND GAS LEASE
N.M. Okla. & Colo. 1957

THIS AGREEMENT, Entered into this the 9th day of November 1979
between The City of Longmont, Longmont Colorado 80501

and Buddy Baker, 1429 Larimer Street, Denver, Colorado 80202

1. That lessor, for and in consideration of the sum of Ten and No/100 Dollars in hand paid and of the covenants and agreements hereinafter contained to be performed by the lessee, has this day granted, leased, and let and by these presents does hereby grant, lease, and let unto the lessee the hereinafter described land, and with the right to unitize this lease or any part thereof with other oil and gas leases as to all or any part of the lands covered thereby as hereinafter provided, for the purpose of carrying on geological, geophysical and other explorations, wells, including core drilling, and the drilling, mining, and operating for, producing, and saving all of the oil, gas, casinghead gas, casinghead oil and all other gases and their respective constituent vapors, and for constructing roads, laying pipe lines, building tanks, storage oil, building power stations, telephone lines and other structures thereon necessary or convenient for the economical operation of said land alone or jointly with neighboring lands, to produce, save, take care of, and manufacture all of such substances, and for housing and boarding employees, said tract of land with all improvements

rights therein being situated in the County of Weld State of Colorado

Township 2 North Range 68 West
Section 8: SW/4 NE/4, NW/4 SE/4

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AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

2. It is agreed that this lease shall remain in full force for a term of Five (5) years from the date hereof, and if it is not renewed or extended by the parties as hereinafter provided, it shall terminate on the expiration of said term.
3. In consideration of the premises the well leaser of wells and gases.
4. To deliver to the credit of lessor, free of cost, at the option of which lease may produce gas, the equal one-eighth (1/8) part of the net proceeds from the sale of gas produced from any well on the leased premises.
5. The lease shall remain in full force and effect from each well where gas is found, one-eighth (1/8) of the proceeds of oil at the well, or if marketed, then one-eighth (1/8) of its market value at the well. The lease shall pay the lease, one-eighth (1/8) of the proceeds received by the lessee from the sale of casinghead gas, produced from any well; (b) one-eighth (1/8) of the value, at the month of the well, computed at the prevailing market price, of the casinghead gas, produced from any well and used by lessee off the leased premises for any purpose or used on the leased premises by the lessee for purposes other than the development and operation thereof. Lessee shall have the privilege at its own risk and expense of using its casinghead gas well on said land for houses and inside lights in the principal dwelling located on the leased premises by making its own connections thereto.
6. Where gas from a well or wells, capable of producing gas, is not sold or used for a period of one year, lessee shall pay or tender as royalty, an amount equal to the delay rental as provided in paragraph 5) hereof, payable annually on the anniversary date of this lease following the end of each such year during which such gas is not sold or used, and while said royalty is so paid or tendered this lease shall be held as a producing property under Paragraph number 1) hereof.
7. If operations for the drilling of a well for oil or gas are not commenced on said land on or before the 23rd day of May 19 81, this lease shall terminate as to both parties, unless the lessee shall on or before said date pay or tender in the lease or for the lessee's credit in the First National Bank at Longmont, Colorado or its successor, which Bank and its successors at the lessee's agent and shall continue as the depositories of any and all sums payable under this lease regardless of changes of ownership in said land or in the oil and gas or in the rentals to accrue hereunder, the sum of Eighty and no/100 Dollars, which shall operate as a rental and cover the expense of determining the commencement of operations for drilling for a period of one year, in like manner and upon like payments or tenders of operations or drilling may be deferred for like periods successively. All payments of rentals may be made by check or draft of lessor or any assignee thereof, made or delivered on or before the rental paying date, either direct to bank or to any other bank or depository bank, and it is understood and agreed that the consideration first recited herein, the above payment, covers not only the privilege granted to the date when said first rental is payable as aforesaid, but also the lessee's option of extending that period as aforesaid and any and all other rights conferred. Lessee may at any time execute and deliver to lessor, or give or record, a release or releases covering any portion or portions of the above described premises and hereby surrenders this lease as to such portion or portions and is relieved of all obligations as to the acreage surrendered, and thereafter the rental payable hereunder shall be reduced in the proportion that the acreage covered hereon is reduced by said release or releases.
8. Should the first well drilled on the above described land be a dry hole, then, and in that event, if a second well is not commenced on said land within twelve months from expiration of the last rental period for which rental has been paid, this lease shall terminate as to both parties, unless the lessee on or before the expiration of said twelve months shall return the payment of rental in the same amount and in the same manner as hereinafter provided. And it is agreed that upon the resumption of the payment of rental, as above provided, that the last preceding paragraph hereof, governing the payment of rentals and the effect thereof shall continue in force just as though there had been no interruption in the rental payments.
9. If said lessee owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the rentals and rentals herein provided shall be paid the lessor only in the proportion which his interest bears to the whole and undivided fee. However, such rental shall be increased at the next succeeding rental anniversary date any payment occurs to cover the interest so acquired.
10. The lessee shall have the right to use, free of cost, gas and air from any well on said land for its operations thereon, except water from the wells of the lessor. When required by lease, the lessee shall bury its pipe lines below plow depth and shall pay for damage caused by its operations to existing crops on said land. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of the lessor. Lessee shall have the right at any time during, or after the expiration of, this lease to remove all machinery, fixtures, houses, buildings and other structures placed on said premises, including the right to haul and remove all casing, lease valves, upon the completion of any test at a dry hole or upon the abandonment of any producing well, to restore the premises to their original condition as near as practicable and to remove all installations within a reasonable time.
11. If the estate of either party hereto is assigned land the privilege of assigning in whole or in part is expressly allowed, the assignments hereof shall extend to the heirs, devisees, executors, administrators, successors, and assigns, but no change of ownership in the land or the rentals or royalties or any sum due under this lease shall be binding on the lessee until it has been furnished with either the original recorded instrument of conveyance or a certified copy thereof or a certified copy of the deed of any increased owner and of the probate order, or certified copy of the proceeding showing the appointment of an administrator for the estate of any holder of either thereof, whichever is appropriate, together with all original recorded instruments of conveyance or their certified copies thereof necessary in showing a complete chain of title back to lessor to the full interest claimed, and all other requirements of rentals made hereunder before receipt of said documents shall be binding on any direct or indirect assignee, grantee, devisee, administrator, executor, or heir of lessor.
12. It is hereby agreed that in the event this lease shall be assigned as to a part or as to parts of the above described land and the holder or owners of any such part or parts shall make default in the payment of the proportionate part of the rent due from him or them, such default shall not operate to defeat or affect this lease insofar as it covers a part of said land, upon which the lessee or any assignee thereof shall make due payment of said rental.
13. Lessor hereby warrants and agrees to defend the title to the land herein described and agrees that the lessee, at its option, may pay and discharge in whole or in part any taxes, mortgages, or other liens existing, levied, or assessed on or against the above described lands and, in event it exercises such option, it shall be obligated to the rights of any holder of either thereof and may reimburse itself by paying to the discharge of any such mortgage, tax or other lien any sums of rentals accruing hereunder.
14. Notwithstanding anything in this lease contained to the contrary, it is expressly agreed that if lessee shall commence operations for drilling at any time while this lease is in force, this lease shall remain in force and its terms shall continue so long as such operations are prosecuted and, if production results therefrom, then as long as production continues.
15. If within the primary term of this lease production on the leased premises shall cease from any cause, this lease shall not terminate provided operations for the drilling of a well shall be commenced before or on the next ensuing rental paying date; provided lessee begins or resumes the payment of rentals in the manner and amount hereinafter provided. If after the expiration of the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided lessee resumes operations for reworking or drilling a well within sixty (60) days from such cessation and this lease shall remain in force during the prosecution of such operations and, if production results therefrom, then as long as production continues.
16. Lessee is hereby given the right at its option, at any time and from time to time, to pool or unitize all or any part or parts of the above described land with other land, lease, or leases in the immediate vicinity thereof, such pooling to be unitized units not exceeding the maximum acre limit on which a well may be drilled under law, rules, or regulations in force at the time of such pooling or unitization, provided, however, that such units do not exceed such maximum acre limit unless it is shown that such excess is necessary in order to conform to ownership subdivisions of lease lines. Lessee shall exercise said option, as to each desired unit, by executing and recording an instrument identifying the unitized area. Any well drilled or operations conducted on any part of each such unit shall be considered a well drilled or operations conducted under this lease, and there shall be allocated to the production of the above described land included in any such unit such proportion of the total production from all wells on such unit as lessor's interest, if any, in such portion, computed on an acre basis, bears to the entire acreage of such unit. And it is understood and agreed that the production so allocated shall be considered for all purposes, including the payment of rentals, to be the entire production from the portion of the above described land included in such unit in the same manner as though removed from the above described land under the terms of this lease.
17. This lease and all its terms, conditions and stipulations shall extend to, and be binding on each of the parties to each of the leases, regardless of whether the same be made by or to a trustee or a partner or any of the other parties herein named as lessors. This lease may be signed in duplicate, each to have the same effect as the original.

IN WITNESS WHEREOF, we sign the day and year first above written
Witness:

ATTEST:
BY: William E. Sweeney
Director of Finance

The City of Longmont
BY: Robert J. Asby
Mayor

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TRACT
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BOOK 893

Printed by P&M Printing, 511 16th St., Suite 222, (303) 850-1681

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STATE OF _____ ss. Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
COUNTY OF _____ ss. Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

RECEIVED

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this _____
day of _____ 19____, personally appeared _____

AUG 5 1994

COLO. OIL & GAS CONS. COMM.

and _____
_____ to me known to be the identical person _____ described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.
My Commission Expires _____ Notary Public _____

STATE OF _____ ss. Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
COUNTY OF _____ ss. Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this _____
day of _____ 19____, personally appeared _____

and _____
_____ to me known to be the identical person _____ described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

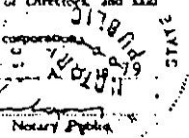
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.
My Commission Expires _____ Notary Public _____

State of Colorado ss. ACKNOWLEDGMENT (For use by Corporations)
County of Boulder ss.

On this 7th day of December, A. D. 1979, before me personally
appeared Robert J. Askey, to me personally known who, being by
me duly sworn, did say that he is the Mayor of Longmont, Colorado,

and that the seal affixed to said instrument is the corporate seal of said corpora-
tion and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said
_____ acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal this 7th day of December



(SEAL)

My Commission expires November 13, 1983

FROM	TO
Date	19
At	County
This instrument was filed for record on the	
day of	19
at	o'clock
Volume	Page
of the records of this office.	
County Clerk	Deputy
When recorded return to	

ADDENDUM TO OIL AND GAS LEASE

RECEIVED

THIS ADDENDUM is made and entered into this 4th day of December, 1979, by and between the City of Longmont, Colorado, a Municipal Corporation referred to as Lessor, and Buddy Baker, 1429 Larimer Street, Denver, Colorado, referred to as Lessee.

AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

WHEREAS, the Lessee has provided unto Lessor a standard form 88 Oil and Gas Lease for certain real property owned by Lessor in the County of Weld, State of Colorado, containing eighty (80) acres, more or less, said Oil and Gas Lease more specifically described as Township 2 North Range 68 West, Section 8: SW/4 NE/4, NW/4 SE/4, said Oil and Gas Lease being hereto attached and fully made part herein as Exhibit A; and

WHEREAS, the said property of the City of Longmont constitutes an operational portion of the Lessor's Solid Waste Landfill territories; and

WHEREAS, the Lessor is willing to execute the said attached Lease upon the additional specifications herein contained restricting and prohibiting Lessee from conducting drilling, construction or other physical utilization of the surface of the said leased property without the written consent of the Lessor as to the aforesaid activity of Lessee, along with the location and placement of any surface equipment or installation, or otherwise merely submitting the same to be used by Lessee in its unitization of the said leased land in conjunction with other surrounding territories upon which Lessee may have a leasehold or other proprietary interest not owned by the City thereby appropriating the subsurface oil and gas resources.

NOW, THEREFORE, it is Agreed as follows:

- 1. Except as may be specifically inconsistent with the terms of this Addendum, the Oil and Gas Lease hereto attached

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as Exhibit A shall become the agreement between the said parties.

2. That the Lessee shall be prohibited from drilling, making construction or otherwise interfering with the surface of the afore described leased territories unless such activity and designation of placement upon the above described leased territory is first approved and specified in writing by the Lessor.

3. That the Lessee otherwise be permitted to include the underground oil and gas resources in its unitization with other territories as hereinabove contemplated in such fashion as to not interfere with the surface requirements of the Lessor of the said territory owned by Lessor and that the Lessor be compensated the royalty and enjoy the other benefits attributable to the said territory and production of oil and gas attributable to the said territory of Lessor.

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AUG 5 - 1994

COLO. OIL & GAS CONS. COMM.

CITY OF LONGMONT, COLORADO
a Municipal Corporation

Robert J. Askey
MAYOR

ATTEST:
[Signature]
DIRECTOR OF FINANCE

LESSEE

By *[Signature]*

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Form No. (Producers) C Rev 1974 OIL AND GAS LEASE
KAR, OIL & GAS, 1957

EXHIBIT A

THIS AGREEMENT, Entered into this the 9 day of November, 1979,
between
The City of Longmont, a Municipal corporation

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and Buddy Baker, 1429 Larimer Street, Denver, Colorado 80202
Hereinafter called lessor, does witness:

1. That lessor, for and in consideration of the sum of Two and More Dollars in hand paid and of the covenants and agreements hereinafter explained to be performed by the lessee, has this day granted, leased, and let out by lease certain, his hereby, grant, lease, and let out unto the lessee the hereinafter described land, and with the right to utilize this lease or any part thereof with other oil and gas leases as to all or any part of the lands covered hereby as hereinafter provided, for the purpose of carrying on geological, geophysical and other explorations, including but not limited to the drilling, reworking, and operating for production, and for constructing, installing, maintaining, repairing, and otherwise operating and other structures thereon necessary or convenient for the successful operation of said lease alone or jointly with neighboring lands, to produce, save, take care of, and manufacture all such substances, and for housing and housing employees, and tract of land with any improvements thereon being situated in the County of Weld State of Colorado and described as follows:

Township 2 North, Range 63 West of the 6th P.M.,
Section 8: E4 SE4, SE4 NE4, and that portion of SE4 NE4 NW4 lying South and East
of Right-of-Way granted in Instrument recorded in Book 669, Reception No.
1591488

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AUG 5 - 1994

and containing Five acres, more or less
COLORADO OIL & GAS CONS. COMM.

2. It is agreed that this lease shall remain in full force for a term of Five years from this date, and as long as oil or gas is produced from said land (or from lands with which said land is consolidated) or the premises are being developed or operated.
3. In consideration of the premises the said lease covenants and agrees:
To deliver to the credit of lessor, free of cost, in the pipe line to which lessee may connect his wells, the equal one-eighth (1/8) part of all oil produced and saved from the leased premises.
4. The lessee shall monthly pay lessor as royalty on gas marketed from each well where gas only is found, one-eighth (1/8) of the proceeds of sale of such gas, or if marketed by lessee from lands with which said land is consolidated, one-eighth (1/8) of its market value at the well. The lessee shall pay the principal (1/8) of the proceeds received by the lessee from the sale of marketed gas, produced from any oil well, to one-eighth (1/8) the value, at the mouth of the well, computed at the prevailing market price of the marketed gas, produced from an oil well and used by lessee off the leased premises for any purpose or used on the leased premises or the lessee for purposes other than the development and operation thereof. Lessor shall have the privilege at his own risk and expense of using gas from any well on said land for stores and other tanks in the principal dwelling located on the leased premises by making his own connections thereto.
Where gas from a well or wells, capable of producing gas in this or any other well, is not sold or used for a period of one year, lessee shall pay to lessor as royalty, an amount equal to the value of gas as provided in paragraph 4) hereof, payable annually on the anniversary date of this lease following the end of each such year during which such gas is not sold or used, and while said royalty is unpaid or tendered this lease shall be held as a producing property until payment is made.
5. If operations for the drilling of a well for oil or gas are not commenced on said land on or before the 9 day of November, 1980, this lease shall terminate as to both parties, unless the lessee shall on or before said date pay or tender to the lessor or to the lessor's estate or to First National Bank at Longmont, Colorado or its successors, when bank and its successors are the lessor's agent and shall continue as the depositories of any oil or gas produced from this lease in accordance with the provisions of this lease in the event of the death of the lessor or his estate.

6. Should the first well drilled on the above described land be a dry hole, then, and in that event, if a second well is not commenced on said land within twelve months from the expiration of the last rental period for which rental has been paid, this lease shall terminate as to both parties, unless the lessee shall on or before the expiration of said period pay or tender to the lessor or to the lessor's estate or to First National Bank at Longmont, Colorado or its successors, when bank and its successors are the lessor's agent and shall continue as the depositories of any oil or gas produced from this lease in accordance with the provisions of this lease in the event of the death of the lessor or his estate. And it is agreed that upon the resumption of the payment of rentals, as above provided, that the last provided paragraph hereof, governing the payment of rentals and the effect thereof shall continue in force just as though there had been no interruption in the rental payments.
7. If said lessee owns a less interest in the above described land than the entire and undivided fee, then the entire and undivided fee, then the entire and undivided fee shall be used by the lessee well in the proportion which his interest bears to the whole and undivided fee. However, such rental shall be increased to the next succeeding rental anniversary after any reversion occurs upon the completion of all obligations as to the acreage described herein.
8. The lessee shall have the right, free of cost, gas, oil and water found on said land for its operations thereon, except water from the wells of the lessor. When required by lessor, the lessee shall bury its pipe lines below the depth and shall pay for damage caused by its operations in driving cross on said land. No well shall be drilled nearer than 200 feet in the blow or burn now on said premises without written consent of the lessor. Lessor shall have the right at any time during or after the expiration of this lease to remove all machines, fixtures, houses, buildings and other structures placed on said premises, including the right to draw and remove all casing, tower and all other structures, and to remove all instruments within a reasonable time.
9. If the estate of either party hereto is assigned (and the privilege of assigning in whole or in part is expressly allowed), the covenants hereof shall extend to the heirs, devisees, executors, administrators, successors, and assigns, but no change of ownership in the land or in the estate of either party shall constitute a breach of this lease, and the lease shall be binding on the lessee until it has been furnished with either the original recorded instrument of conveyance or a duly certified copy thereof or a certified copy of the deed of any deceased owner and of the private recorded instrument of conveyance or a duly certified copy thereof or a certified copy of the deed of any deceased owner, whichever is appropriate, together with all original recorded instruments of conveyance or duly certified copies thereof necessary in showing a complete chain of title back to lessor in the full interest claimed, and all answer and needs of rentals made hereunder before receipt of said documents shall be binding on any direct or indirect assignee, grantee, devisee, administrator, executor, or heir of lessor.

10. It is hereby agreed that in the event this lease shall be assigned as to a part or as to units of the above described land and the holder or owner of any such part or parts shall make default in the payment of the proportionate part of the rent due from him or them, such default shall not operate to defeat or affect this lease insofar as it covers a part of said land upon which the lessee or any assignee hereof shall make due payment of said rentals.
11. Lessor hereby warrants and agrees to defend the title to the land herein described and agrees that the lessee, at its option, may pay and discharge in whole or in part any taxes, mortgages, or other liens existing, levied, or assessed on or against the above described lands and, in event it exercises such option, it shall be subrogated to the rights of any holder of liens thereof and may reimburse itself by applying to the discharge of any such mortgage, tax or other lien, any royalty or rentals accruing hereunder.
12. Notwithstanding anything in this lease contained to the contrary, it is expressly agreed that if lessor shall commence operations for drilling at any time while this lease is in force, this lease shall remain in force and its terms shall continue in full as such operations are prosecuted and, if production results therefrom, then as long as production continues.
13. It is the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided operations for the drilling of a well shall be commenced before or on the next ensuing rental paying date, or, provided lease begins or resumes the payment of rentals in the manner and amount hereinafter provided. If, after the expiration of the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided lessor resumes operations for reworking or drilling a well within sixty (60) days from such cessation and this lease shall remain in force during the prosecution of such operations and, if production results therefrom, then as long as production continues.

14. Lessor hereby gives the right to the lessee, at any time and from time to time, to pool or unitize all or any part or parts of the above described land with other land, lease, or lease in the immediate vicinity thereof, such pooling to be into units not exceeding the maximum well spacing on which a well may be drilled under law, or regulations in force at the time of such pooling or unitization; provided, however, that such units may exceed such maximum by not more than ten acres if such excess is necessary in order to conform to law. Lessor shall exercise such option, as to each described unit, by recording and recording an instrument identifying the unitized area. Any well drilled or operations conducted on any part of each such unit shall be considered a well drilled or operations conducted under this lease, and there shall be allocated to the portion of the above described land included in such well such proportion of the actual production from all wells on such unit as lessor's interest, if any, in such portion, computed on an acreage basis, bears to the entire acreage of such unit. And it is understood and agreed that the production so allocated shall be considered for all purposes, including the payment or delivery of royalty, to be the entire production from the portion of the above described land included in such unit in the same manner as though produced from the above described land under the terms of this lease.
15. This lease, with all its terms, conditions and stipulations shall extend to, and be binding on each of the parties who signs this lease, regardless of whether such lease is marked done and regardless of whether it is signed by any of the other parties herein named as lessor. This lease may be signed in counterparts, each of which shall have the same effect as the original.

IN WITNESS WHEREOF, we set the day and year first above written
Witness:
Attest:
Atty. General E. S. Lucey
TITLE: Director of Finance

THE CITY OF LONGMONT
BY: Robert J. Askey
TITLE: Mayor

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181-4781
AUG 5 - 1994

BOOK 893
Printed by P&M Printing, 311 10th St., Suite 222, (303) 633-1661

STATE OF _____) ss. Oklahoma, Kansas, New Mexico, Wyoming, Missouri, Colorado, Utah,
COUNTY OF _____) Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

COLO. OIL & GAS COM. COMM.

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this _____
day of _____, 19____ personally appeared _____

and _____
_____ to me known to be the identical person _____ described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.
My Commission Expires _____ Notary Public.

STATE OF _____) ss. Oklahoma, Kansas, New Mexico, Wyoming, Missouri, Colorado, Utah,
COUNTY OF _____) Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this _____
day of _____, 19____ personally appeared _____

and _____
_____ to me known to be the identical person _____ described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.
My Commission Expires _____ Notary Public.

State of _____ COLORADO) ss. ACKNOWLEDGMENT (For use by Corporations)

On this _____ day of _____, A. D. 1980, before me personally
appeared _____ to me personally known, who, being by
_____ that he is the _____ of _____, Colorado,
and that the seal affixed to said instrument is the corporate seal of said corpora-
tion, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said
_____ acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal this _____ day of _____, A. D. 19____
(SEAL) _____ Notary Public.

My Commission expires _____ September 13, 1983

No. _____	FROM _____	TO _____	Date _____ 19____	No. Accts. _____	County _____	Term _____	This instrument was filed for record on the _____ day of _____, 19____ at _____ o'clock _____ M., and duly recorded in Volume _____ Page _____ of the records of this office County Clerk.	By _____ Deputy.	Where recorded return to _____
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BOOK 893

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AUG 5 - 1994

COLO. OIL & GAS COM. COMM.

ADDENDUM TO OIL AND GAS LEASE

THIS ADDENDUM is made and entered into this 4th day of December, 1979, by and between the City of Longmont, Colorado, a Municipal Corporation referred to as Lessor, and Buddy Baker, 1429 Larimer Street, Denver, Colorado, referred to as Lessee.

WHEREAS, the Lessee has provided unto Lessor a standard form 88 Oil and Gas Lease for certain real property owned by Lessor in the County of Weld, State of Colorado, containing One hundred twenty-one (121) acres, more or less, said Oil and Gas Lease more specifically described as Township 2 North, Range 68 West, Section 8: E $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, and that portion of SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ lying South and East of Right-of-Way granted to Instrument recorded in Book 669, Reception No. 1591488, said Oil and Gas Lease being hereto attached and fully made part herein as Exhibit A; and

WHEREAS, the said property of the City of Longmont constitutes an operational portion of the Lessor's Solid Waste Landfill territories; and

WHEREAS, the Lessor is willing to execute the said attached Lease upon the additional specifications herein contained restricting and prohibiting Lessee from conducting drilling, construction or other physical utilization of the surface of the said leased property without the written consent of the Lessor as to the aforesaid activity of Lessee, along with the location and placement of any surface equipment or installation, or otherwise merely submitting the same to be used by Lessee in its unitization of the said leased land in conjunction with other surrounding territories upon which Lessee may have a leasehold or other proprietary interest not owned by the City thereby appropriating the subsurface oil and gas resources.

NOW, THEREFORE, it is Agreed as follows:

1. Except as may be specifically inconsistent with the terms of this Addendum, the Oil and Gas Lease hereto attached

BOOK 883

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AUG 5 - 1994

COLO. OIL & GAS CONS. COM. INC.

as Exhibit A shall become the agreement between the said parties.

2. That the Lessee shall be prohibited from drilling, making construction or otherwise interfering with the surface of the afore described leased territories unless such activity and designation of placement upon the above described leased territory is first approved and specified in writing by the Lessor.

3. That the Lessee otherwise be permitted to include the underground oil and gas resources in its unitization with other territories as hereinabove contemplated in such fashion as to not interfere with the surface requirements of the Lessor of the said territory owned by Lessor and that the Lessor be compensated the royalty and enjoy the other benefits attributable to the said territory and production of oil and gas attributable to the said territory of Lessor.

CITY OF LONGMONT, COLORADO
a Municipal Corporation

Robert J. Askey
MAYOR

ATTEST:

Alvin E. Sweeney
TREASURER OF FINANCE

LESSEE

By Bruce W. Saylor

Form No. (Producer) 1974 **OIL AND GAS LEASE**

THIS AGREEMENT, Entered into this the 26th day of October, 19 79
between Malba Grace Distel, a widow
1443 Wold County Road 20 1/2
Longmont, Colorado
and Buddy Baker, 1429 Larimer St, Denver, Colorado 80202 hereinafter called leasee,

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GOLD OIL & GAS CONS. COMM.

1. That leasee, for and in consideration of the sum of Ten & more Dollars in hand paid and of the covenants and agreements hereinafter contained to be performed by the leasee, has this day granted, leased, and let and by these presents does hereby grant, lease, and let unto the lessor the hereinafter described land, and with the right to utilize this lease or any part thereof with other oil and gas leases to all or any part of the lands covered hereby as hereinafter provided, for the purpose of carrying on geological, geophysical and other exploratory operations, including core drilling, and the drilling, mining, and operating for, producing, and saving all of the oil, gas, camphrad gas, camphrad gasoline and all other gases and their respective constituents, and for constructing roads, laying pipe lines, building tanks, storing oil, building power stations, telephone lines and other structures thereon necessary or convenient for the economical operation of said land alone or conjointly with neighboring lands, to produce, save, take care of, and manufacture all of such substances, and for housing and boarding employees, and taking of land with any necessary rights therein being situated in the County of Wald State of Colorado, and described as follows:

Township 2 North Range 63 West
Section 3: SE 1/4, SW 1/4
Section 17: NW 1/4, NE 1/4, E 1/4 NW 1/4 EXCEPT parcels described in book
307 page 536 & book 1233 page 513

and containing 130.02 acres, more or less.

2. It is agreed that this lease shall remain in full force for a term of Five (5) years from this date, and as long thereafter as oil or gas or either of them, is produced from said land (or from lands with which said land is consolidated), or the premises are being developed or operated.

3. In consideration of the premises the said leasee covenants and agrees:
To deliver to the credit of lessor, free of cost, in the pipe line to which leasee may connect his wells, the equal one-eighth (1/8) part of all oil produced and saved from the leased premises.
The leasee shall monthly pay to lessor as royalty on gas marketed from each well where gas only is found, one-eighth (1/8) of the proceeds if sold at the well, or if marketed by leasee off the leased premises, then one-eighth (1/8) of its market value at the well. The leasee shall pay the leasee (a) one-eighth (1/8) of the proceeds received by the leasee from the sale of camphrad gas, produced from any oil well; (b) one-eighth (1/8) of the value, at the market of the well, computed at the prevailing market price, of the camphrad gas, produced from any oil well and used by leasee off the leased premises for any purpose or used on the leased premises by the leasee for purposes other than the development and operation thereof. Leasee shall have the privilege at his own cost and expense of using gas from any gas well on said land for stoves and inside lights in the principal dwelling located on the leased premises, or for lighting in a construction thereon.

4. Where the leasee is producing gas only, and not sold or used for a period of one year, leasee shall pay or tender as royalty, an amount equal to the daily rental as provided in paragraph (5) hereof, payable annually on the anniversary date of this lease following the end of each such year during which well is not sold or used, and while said royalty is to be paid or tendered this lease shall be held as a producing property under the provisions of this lease.

5. If operations for the drilling of a well for oil or gas are not commenced on said land on or before the 26th day of October 19 80, this lease shall terminate as to both parties, unless the leasee shall on or before said date, pay or tender to the lessor or for the lessor's credit in the First National Bank at Longmont, Colorado or its successor, which bank and its successor are the lessor's agent and shall continue as the depository of any and all moneys payable under this lease regardless of ownership of said land or in the oil and gas or in the rentals to accrue hereunder, the sum of One hundred eighty & 00/100 Dollars, which shall operate as a rental and cover the commencement of operations for drilling for a period of one year. In like manner and upon like payments or tenders the commencement of operations for drilling may further be deferred for like periods successively. All payments or tenders may be made by check or draft of leasee or any assignee thereof, mailed or delivered on or before the rental paying date, either direct to bank or depository or to mail depository and accepted, and it is understood that the consideration first recited herein, the down payment, covers not only the privilege granted to the date when said first rental is payable as aforesaid, but also the interest of extending that period as aforesaid and any and all other rights conferred. Leasee may at any time execute and deliver to lessor, or piece of record, a release or releases covering any portion or portions of the above described premises and thereby surrender this lease as to such portion or portions and be relieved of all obligations as to the acreage surrendered, and thereafter the rentals payable hereunder shall be reduced in the proportion that the acreage covered hereunder is reduced by said release or releases.

6. Should the first well drilled on the above described land be a dry hole, then, and in that event, if a second well is not commenced on said land within twelve months from the expiration of the last rental period for which rental has been paid, this lease shall terminate as to both parties, unless the leasee on or before the expiration of said twelve months shall resume the payment of rentals on the same amount and in the same manner as hereinafter provided. And it is agreed that upon the resumption of the payment of rentals, as above provided, that the last preceding paragraph hereof, covering the payment of rentals and the effect thereof shall continue in force just as though there had been no interruption to the rental payments.

7. If said leasee owns a lease interest in the above described land than the entire and undivided fee simple estate therein, then the rentals and rentals herein provided shall be paid the lessor only in the proportion which his interest bears to the whole and undivided fee. However, such rental shall be increased at the next succeeding rental anniversary after any reversion occurs to cover the interest so acquired.

8. The leasee shall have the right to use, free of cost, gas, oil and water found on said land for its operations thereon, except water from the wells of the lessor. When required by leasee, the leasee shall bury its pipe lines below plow depth and shall pay for damage caused by its operations to growing crops or to buildings. No well shall be drilled nearer than 200 feet to a house or barn on said premises without the written consent of the lessor. Leasee shall have the right at any time during, or after the expiration of, this lease to remove all machinery, fixtures, boxes, buildings and other structures placed on said premises, including the right to draw and remove all casing. Leasee agrees, upon the completion of any test as a dry hole or upon the abandonment of any producing well, to restore the premises to their original contour as near as practicable and to remove all installations within a reasonable time.

9. If the estate of either party hereto is assigned (and the privilege of assignment in whole or in part is expressly allowed), the covenants hereof shall extend to the heirs, devisees, executors, administrators, successors, and assigns, but no change of ownership in the land or in the rentals or royalties or any sum due under this lease shall be binding on the leasee unless the leasee shall be furnished with either the original recorded instrument of conveyance or a duly certified copy thereof or a certified copy of the will of any deceased owner and of the proceeds thereof, or certified copy of the proceedings showing appointment of an administrator for the estate of any deceased owner, whichever is appropriate, together with all original recorded instruments of conveyance or duly certified copies thereof necessary in showing a complete chain of title back to lessor to the full interest claimed, and all advance payments of rentals made hereunder before receipt of said documents shall be binding on any direct or indirect assignee, grantee, devisee, administrator, executor, or heir of lessor.

10. It is hereby agreed that to the extent this lease shall be assigned as to a part or as to parts of the above described land and the holder or owner of any such part or parts shall in default of the payment of the proportionate part of the rent due from him or them, such default shall not operate to defeat or affect this lease insofar as it covers a part of said land upon which the leasee or any assignee hereof shall have made payment of said rentals.

11. Lessor hereby warrants and agrees to defend the title to the land herein described and agrees that the leasee, at its option, may pay and discharge in whole or in part any taxes, mortgages, or other liens existing, levied, or assessed on or against the above described lands and, in event it exercises such option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax or other lien, any royalty or rentals accruing hereunder.

12. Notwithstanding anything to the contrary in this lease contained to the contrary, it is expressly agreed that if leasee shall commence operations for drilling at any time while this lease is in force, this lease shall remain in force and its terms shall continue in full force and effect as long as such operations are prosecuted and, if production results therefrom, then as long as production continues.

If within the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided operations for the drilling of a well shall be commenced before or on the next ensuing rental paying date, or provided leasee begins or resumes the payment of rentals in the manner and amount hereinafter provided. If, after the expiration of the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided leasee resumes operations for reworking or drilling a well within sixty (60) days from such cessation and this lease shall remain in force during the prosecution of such operations and, if production results therefrom, then as long as production continues.

13. Leasee is hereby given the right at its option, at any time and from time to time, to pool or unitize all or any part or parts of the above described land with other land, lease, or leases in the immediate vicinity thereof, such pooling to be into units not exceeding the minimum acre tract on which a well may be drilled under laws, rules, or regulations in force at the time of such pooling or unitization; provided, however, that such units may exceed such minimums by not more than ten acres if such excess is necessary in order to conform to ownership subdivisions of lease land. Leasee shall restore said unit, as to each damaged unit, by reworking and reworking an instrument identifying the unitized area. Any well drilled or operations conducted on any part of such well shall be considered a well drilled or operations conducted under this lease, and there shall be allocated to the portion of the above described land included in any such unit such proportion of the actual production from all wells on such unit as lessor's interest, if any, in such portion, computed on an acreage basis, bears to the entire acreage of such unit. And it is understood and agreed that the production so allocated shall be considered for all purposes, including the payment or delivery of royalty, to be the entire production from the portion of the above described land included in such unit in the same manner as though produced from the above described land under the terms of this lease.

14. This lease and all its terms, conditions and stipulations shall extend to, and be binding on each of the parties who signs this lease, regardless of whether such lease is named above and regardless of whether it is signed by any of the other parties herein named as lessor. This lease may be signed in counterparts, each to have the same effect as the original.

IN WITNESS WHEREOF, we sign the day and year first above written.

Witness: _____
_____ Malba Grace Distel
Malba Grace Distel

000-3-19 00151

800-889

1810719
J-2

Printed by P&M Printing, 511 16th St., Suite 222, (303) 883-1231

STATE OF Colorado)
COUNTY OF Weld) ss. Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

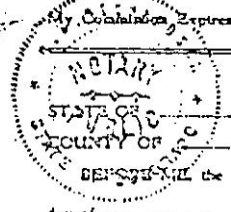
BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this 28th
day of November, 1979, personally appeared Melba Grace Distel, a widow

RECEIVED
AUG 5 - 1984

and _____
_____ to me known to be the identical person _____ described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

COLO. OIL & GAS COM. COMM.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the fourth day of November last above written.
My Commission Expires 11/13/83 _____
Notary Public.



STATE OF _____)
COUNTY OF _____) ss. Oklahoma, Kansas, New Mexico, Wyoming, Montana, Colorado, Utah,
Nebraska, North Dakota, South Dakota
ACKNOWLEDGMENT - INDIVIDUAL

BEFORE ME, the undersigned, a Notary Public, in and for said County and State, on this _____
day of _____, 19____, personally appeared _____

and _____
_____ to me known to be the identical person _____ described in and who executed
the within and foregoing instrument of writing and acknowledged to me that _____ duly executed the same as _____ free
and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.
My Commission Expires _____
Notary Public.

State of _____)
County of _____) ss. ACKNOWLEDGMENT (For use by Corporation)

On this _____ day of _____, A. D. 19____, before me personally
appeared _____ to me personally known, who, being by
me duly sworn, did say that he is the _____ of _____
and that the seal affixed to said instrument is the corporate seal of said corpora-
tion and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said
_____ acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal this _____ day of _____, A. D. 19____.

Notary Public.

(SEAL)
My Commission expires _____

FROM TO
No. _____
Date _____ 19____
No. Acres _____
County _____
Term _____
This instrument was filed for record on the _____ day of _____, 19____ at _____ o'clock _____ M., and duly recorded in
Volume _____ Page _____
_____ of the records of this office.
County Clerk
By _____ Deputy.
When recorded return to _____
Luddy Baker

Document Number:
401411121

Date Received:
09/22/2017

WELL ABANDONMENT REPORT

This form is to be submitted as an Intent to Abandon whenever an abandonment is planned on a borehole. After the abandonment is complete, this form shall again be submitted as a Subsequent Report of the actual work completed. The approved intent shall be valid for six months after the approval date, after that period, a new intent will be required. Attachments required with the Intent to Abandon are wellbore diagrams of the current configuration and the proposed configuration with plugs set.

A Subsequent Report of Abandonment shall indicate the actual work completed. Attachments required with a Subsequent Report are a wellbore diagram showing plugs that were set and casing remaining in the hole, the job summaries from all plugging contractors used, including wireline and cementing (third party verification) and any logs that may have been run during abandonment.

OGCC Operator Number: 39560 Contact Name: Paul Herring

Name of Operator: TOP OPERATING COMPANY FDDB MURRAY J Phone: (720) 6631698

Address: 3609 S WADSWORTH BLVD STE 340 Fax: _____

City: LAKEWOOD State: CO Zip: 80235 Email: paul.herring@topoperating.com

For "Intent" 24 hour notice required, Name: Helgeland, Gary Tel: (970) 216-5749

COGCC contact: Email: gary.helgeland@state.co.us

API Number 05-123-18510-00

Well Name: LONGMONT Well Number: 8-10K

Location: QtrQtr: NWSE Section: 8 Township: 2N Range: 68W Meridian: 6

County: WELD Federal, Indian or State Lease Number: _____

Field Name: WATTENBERG Field Number: 90750

Notice of Intent to Abandon Subsequent Report of Abandonment

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.150489 Longitude: -105.023448

GPS Data:
Date of Measurement: 04/24/2014 PDOP Reading: 1.2 GPS Instrument Operator's Name: Rod Herring

Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other _____

Casing to be pulled: Yes No Estimated Depth: _____

Fish in Hole: Yes No If yes, explain details below

Wellbore has Uncemented Casing leaks: Yes No If yes, explain details below

Details: _____

Current and Previously Abandoned Zones

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
CODELL	7381	7398			
J SAND	7816	7848			

Total: 2 zone(s)

Casing History

Casing Type	Size of Hole	Size of Casing	Weight Per Foot	Setting Depth	Sacks Cement	Cement Bot	Cement Top	Status
SURF	12+1/4	8+5/8	24	581	325	581	0	VISU
1ST	7+7/8	4+1/2	11.6	7,952	250	7,952	6,456	CBL
S.C. 1.1				3,611	600	3,611	3,040	CBL
S.C. 1.2				1,320	430	1,320	0	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7766 with 2 sacks cmt on top. CIBP #2: Depth 7331 with 2 sacks cmt on top.
 CIBP #3: Depth _____ with _____ sacks cmt on top. CIBP #4: Depth _____ with _____ sacks cmt on top.
 CIBP #5: Depth _____ with _____ sacks cmt on top.

NOTE: Two(2) sacks cement required on all CIBPs.

Set <u>10</u>	sks cmt from <u>7118</u>	ft. to <u>7018</u>	ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input checked="" type="checkbox"/>
Set <u>20</u>	sks cmt from <u>3660</u>	ft. to <u>3397</u>	ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input checked="" type="checkbox"/>
Set <u>15</u>	sks cmt from <u>1470</u>	ft. to <u>1300</u>	ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input type="checkbox"/>
Set <u>25</u>	sks cmt from <u>631</u>	ft. to <u>531</u>	ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input checked="" type="checkbox"/>
Set _____	sks cmt from _____	ft. to _____	ft.	Plug Type: _____	Plug Tagged: <input type="checkbox"/>

Perforate and squeeze at 1500 ft. with 75 sacks. Leave at least 100 ft. in casing 1470 CICR Depth
 Perforate and squeeze at _____ ft. with _____ sacks. Leave at least 100 ft. in casing _____ CICR Depth
 Perforate and squeeze at _____ ft. with _____ sacks. Leave at least 100 ft. in casing _____ CICR Depth
(Cast Iron Cement Retainer Depth)

Set _____ sacks half in. half out surface casing from _____ ft. to _____ ft. Plug Tagged:
 Set 10 sacks at surface
 Cut four feet below ground level, weld on plate Above Ground Dry-Hole Marker: Yes No
 Set _____ sacks in rat hole Set _____ sacks in mouse hole

Additional Plugging Information for Subsequent Report Only

Casing Recovered: _____ ft. _____ inch casing Plugging Date: _____
 of _____
 *Wireline Contractor: _____ *Cementing Contractor: _____
 Type of Cement and Additives Used: _____
 Flowline/Pipeline has been abandoned per Rule 1103 Yes No *ATTACH JOB SUMMARY

Technical Detail/Comments:

1. Conduct pre-job safety meeting and complete daily JSA
2. Prior to MIRU, check rig anchors and blow down well if necessary
3. Dig out around wellhead and check surface annulus for pressure
(If present call Paul Herring #720-663-1698 and Chad Vannest #970-381-5818 for orders)
4. MIRU P&A equipment, NDWH, NUBOP
5. TOH and tally 2-3/8" tubing (inspecting for damage), stand back 395'
6. RU wireline, PU 4-1/2" 11.6# JC/GR, TIH to 7,766', TOH
7. PU 4-1/2" 11.6#, 10K, CIBP, TIH and set at 7,766', TOH
8. TIH and CDB 2 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement on top, TOH
(2 sxs is 26' in 4-1/2", TOC: 7,740')
9. PU 4-1/2" 11.6#, 10K, CIBP, TIH and set at 7,331', TOH
10. TIH and CDB 2 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement on top, TOH, RD wireline
(2 sxs is 26' in 4-1/2", TOC: 7,305')
11. TIH to 3,750', circulate wellbore clean and pressure test casing to 500 psi. for 5 minutes
(If pressure test fails, call Paul Herring and Chad Vannest
Note: If casing pressure test fails (step 11) additional steps/services required by the COGCC/BLM are not included in this bid and will be billed per our 2017 Time and Material Price Schedule.
12. Pump 20 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover 1st DV tool
(20 sxs is 263' in 4-1/2", TOC: 3,487', bottom of DV tool is 3,611')
13. TOH and LD to 1,500'
14. Pump 22 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover TOC from 1st DV and 2nd DV
(22 sxs is 290' in 4-1/2", TOC: 1,209', TOC from 1st DV is 1,460', bottom of 2nd DV is 1,320')
15. TOH and LD to 681'
16. Pump 20 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover surface casing shoe
(20sxs is 263' in 4-1/2", TOC: 418', surface casing shoe at 581')
17. TOH and LD to 130', pump 10 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to surface
(10 sxs is 131' in 4-1/2", TOC: surface)
18. TOH and LD tubing, RDMO, dig out and cut off wellhead, verify cement at surface, top off if necessary
19. Weld info plate onto casing, backfill pit, clean location, P&A complete

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

Signed: _____ Print Name: Paul Herring
 Title: Landman Date: 9/22/2017 Email: paul.herring@topoperating.com

Based on the information provided herein, this Well Abandonment Report (Form 6) complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: McCoy, Diane Date: 10/12/2017

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 4/11/2018

COA Type	Description
	<p>Note: Changes made to plugging procedure.</p> <ol style="list-style-type: none"> 1) Provide 48 hour notice of plugging MIRU via electronic Form 42. 2) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete. 3) After pumping squeeze, shut down and wait on cement at minimum 4 hours; verify gas migration has been eliminated. If evidence of gas migration or pressure remains contact COGCC Engineer for an update to plugging orders. Leave at least 100' of cement in the wellbore for each plug.
	<p>Due to past bradenhead pressure; prior to starting plugging operations, a bradenhead test shall be performed and samples shall be collected. Sampling shall comply with Operator Guidance - Bradenhead Testing and Reporting Instructions. The Form 17 shall be submitted within 10 days of the test.</p>

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401411121	FORM 6 INTENT SUBMITTED
401411231	PROPOSED PLUGGING PROCEDURE
401411237	WELLBORE DIAGRAM
401411257	WELLBORE DIAGRAM

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	Added information to form per email from operator. Corrected cement and casing section. Plugs have been added and depths and types changes.	10/09/2017
Engineer	on hold- emailed operator- no response to quesitons on the form: Will casing be pulled? Is there a fish in the hole? Are there any uncemented casing leaks? It looks like the plug types are listed incorrectly- all were submitted as "stub plugs" The J-sand perfs and Codell perfs will need to be abandoned separately. Need J-sand plug. The surface casing shoe plug needs to extend from at least 50 feet below to 50 feet above the shoe. I'll have to change the proposed depths so we have the coverage we need.	10/06/2017
Permit	Filled in zones tab in accordance with the WBD and scoutcard.	09/27/2017
Public Room	Document verification complete 09/25/17	09/25/2017

Total: 4 comment(s)

FORM
42
Rev
03/15

State of Colorado
Oil and Gas Conservation Commission

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



OGCC RECEPTION

Receive Date:

10/22/2017

Document Number:

401437174

FIELD OPERATIONS NOTICE

The Form 42 shall be submitted as required by Rule, Notice to Operators, Policy, or Condition of Approval. A Form 42 Update shall be submitted to revise the scheduled date or time on a previous Form 42 - Advance Notice of Field Operations. A Form 42 Update must be for the same well, location, or facility and for the same Field Operation as a previous Form 42. NOTE: Operator's Contact for Advance Notices of Field Operations should be available 24 hours a day, 7 days a week and should have the most current scheduling information for the operation. Operator's Contact for other notices should be able to respond to questions regarding the reported information.

Update of a previous Form 42 Notice NO

Entity Information

OGCC Operator Number: 39560 Contact Person: Paul Herring
Company Name: TOP OPERATING COMPANY FDBA MURRAY J HERRING LTD Phone: (720) 6631698
Address: 3609 S WADSWORTH BLVD STE 340 Fax: ()
City: LAKESWOOD State: CO Zip: 80235 Email: paul.herring@topoperating.com

API #: 05 - 123 - 18510 - 00 Facility ID: _____ Location ID: _____
Facility Name: LONGMONT 8-10K Submit By Other Operator
Sec: 8 Twp: 2N Range: 68W QtrQtr: NWSE Lat: 40.150489 Long: -105.023448

START OF PLUGGING OPERATIONS - 48-hour notice required

Date: 10/25/2017 Time: 6:00 (HH:MM)

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

Print Name: Paul Herring Email: paul.herring@topoperating.com
Signature: _____ Title: Landman Date: 10/22/2017



RECEIVED
 SEP 03 2008
 Plugging Bond Surety ID#
COGCC 1928 0015

1 Drill, Deepen, Re-enter, Recomplete and Operate

2 TYPE OF WELL
 OIL GAS COALBED OTHER
 SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refilling
 Sidetrack

3 Name of Operator TOP OPERATING CO 4 COGCC Operator Number 39560

5 Address 10881 W ASBURY AVE STE 230
 City LAKEWOOD State CO Zip 80227

6 Contact Name MURRAY J HERRING Phone (303) 727-9915 Fax (303) 727-9925

7 Well Name LONGMONT Well Number 8-10K

8 Unit Name (if appl) _____ Unit Number _____

9 Proposed Total Measured Depth 7952

10 Qtr/Tr NW SE Sec 340K Twp 2N Rng 68W Meridian 6 TH PM

Latitude _____ Longitude _____

Footage At Surface 1650 S 1650 E

11 Field Name WATTENBERG Field Number 90750

12 Ground Elevation 4865 13 County WELD

14 GPS Data
 Date of Measurement _____ PDOP Reading _____ Instrument Operator's Name _____

Attachment Checklist	OP	COGCC
APD Ong & 1 Copy		
Form 2A		
Well location plat		
Topo map		
Mineral lease map		
Surface agrmt/Surety		
30 Day notice letter		
Deviated Drilling Plan		
Exception Location Request		
Exception Loc Waivers		
H2S Contingency Plan		
Federal Drilling Permit		

15 If well is Directional Horizontal (highly deviated), submit deviated drilling plan Bottomhole Sec Twp Rng _____

Footage At Top of Prod Zone _____ At Bottom Hole _____

16 Is location in a high density area (Rule 603b)? Yes No

17 Distance to the nearest building, public road, above ground utility or railroad 1/2 MI NORTH

18 Distance to Nearest Property Line 1650 19 Distance to nearest well permitted/completed in the same formation 3/4 MILE

20 **LEASE, SPACING AND POOLING INFORMATION**

Objective Formation(s)	Formation Code	Spacing Order Number (s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIORRARA/CODELL	NB-CD	407	80	W/2 SE/4

21 Mineral Ownership Fee, State, Federal, Indian Lease # _____

22 Surface Ownership Fee, State, Federal, Indian

23 Is the Surface Owner also the Mineral Owner? Yes No Surface Surety ID# _____

23a If 23 is Yes Is the Surface Owner(s) signature on the lease? Yes No

23b If 23 is No Surface Owners Agreement Attached or \$25,000 Blanket Surface Bond \$2,000 Surface Bond \$5,000 Surface Bond

24 Using standard Qtr/Tr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer)
Sec 8 SWNE (NWSE) 24 68 W

25 Distance to Nearest Mineral Lease Line 1,650 26 Total Acres in Lease 80

DRILLING PLANS AND PROCEDURES

27 Is H2S anticipated? Yes No If Yes, attach contingency plan

28 Will salt sections be encountered during drilling? Yes No

29 Will salt (>15,000 ppm TDS Cl) or oil based muds be used during drilling? Yes No

30 If questions 27 or 28 are yes is this location in a sensitive area (Rule 903)? Yes No If 28, 29 or 30 are "Yes" a pit permit may be required

31 Mud disposal Offsite Onsite
 Method Land Farming Land Spreading Disposal Facility Other N/A A RECOMPLETION

NOTE The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b) if air/gas drilling, notify local fire officials

String	Size of Hole	Size of Casing	Weight Per Foot	Setting Depth	Sacks Cement	Cement Bottom	Cement Top
SURF	12 1/4"	8 5/8"	24 #	581	325	581	SURF
PROD	7 7/8"	4 1/2"	11 6	7952	250	7952	SURF 6456
				3611	600	3611	1460
				1320	430	1320	
			Stage Tool				

32 BOP Equipment Type Annular Preventor Double Ram Rotating Head None

33 Comments THE NIOBRARA AND CODELL WILL BE PERFORATED AND FRACED.

34 Initial Rule 306 Consultation took place on (date) N/A, was waived, or is not required Provide supporting documentation if consultation has been waived or if good faith effort did not result in consultation
PERMIT SUBMITTED TO COGCC PRIOR TO COMPLIANCE WITH RULE 306 CONSULTATION SHALL BE RETURNED UNAPPROVED
 I hereby certify that a complete permit package has been sent to the applicable Local Government Designee(s) and all statements made in this form are, to the best of my knowledge, true, correct, and complete

Signed Murray J Herring Print Name MURRAY J HERRING
 Title VICE PRESIDENT Date 07/21/08 Email TOPOPRTNG@AOL.COM

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved
 COGCC Approved David S. Nash Director of COGCC Date 11/4/2008
 Permit Number 20085944 Expiration Date 11/3/2009

API NUMBER
05-173-18510-CX

CONDITIONS OF APPROVAL, IF ANY

Pressure test casing to 500 psi prior to recompletion, if it does not hold pressure for 15 minutes contact COGCC. During fracing monitor Bradenhead pressure. Before production a Bradenhead test, witnessed by COGCC staff will be run as a baseline. Once completed and tested, the Bradenhead valve needs to left open and allowed to vent. A Bradenhead test will be performed every six months - the Bradenhead valve will be shut-in for one week prior to the test and a chart recorder is to be run in lieu of being witnessed and a Form 17 needs to be submitted, documenting the test. Provide gas-drilled GPS on Sandry.

FORM INSP
Rev 05/11

State of Colorado
Oil and Gas Conservation Commission

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



DE	ET	OE	ES
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Inspection Date:
02/13/2013

Document Number:
667601133

Overall Inspection:
Unsatisfactory

FIELD INSPECTION FORM

Location Identifier	Facility ID	Loc ID	Tracking Type	Inspector Name:
	<u>250707</u>	<u>330147</u>		<u>HICKEY, MIKE</u>

Operator Information:

OGCC Operator Number: 39560 Name of Operator: TOP OPERATING COMPANY
Address: 10881 ASBURY AVE STE 230
City: LAKEWOOD State: CO Zip: 80227

Contact Information:

Contact Name	Phone	Email	Comment
Herring, Debora		toporting@aol.com	

Compliance Summary:

QtrQtr: NWSE Sec: 8 Twp: 2N Range: 68W

Insp. Date	Doc Num	Insp. Type	Insp Status	Satisfactory /Unsatisfactory	PA P/F/I	Pas/Fail (P/F)	Violation (Y/N)
02/21/2012	667600041	PR	PR	S			N
06/18/2010	200255977	BH	SI	S			N
06/18/2010	200260513	PR	PR	U			Y
12/15/2009	200223958	BH	SI	S			N
10/01/2008	200200618	PR	PR	U			Y
10/01/2008	200201331	PR	SI	U			Y
09/26/2008	200200597	PR	PR	U			Y
06/13/2005	200072505	BH	SI	U		F	Y
04/24/1996	500177667	BH	SI			P	N
09/15/1995	500177666	BH	SI			F	Y
04/05/1995	500177665	BH	PR			F	N
01/23/1995	500177664	ES	PR			P	N

Inspector Comment:

Well inspection associated with periodic bradenhead test as required. Plunger lift equipment at the wellhead is dripping oil at multiple points including the master valve. Oil stained soils and weeds within the tank berm require clean up. Unused equipment within the separator berm requires removal. Unused portable toilet on location requires removal.

Related Facilities:

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	
250707	WELL	PR	05/14/2009	GW	123-18510	LONGMONT 8-10K	<input checked="" type="checkbox"/>

Equipment:

Location Inventory

--

Special Purpose Pits: _____	Drilling Pits: _____	Wells: _____	Production Pits: _____
Condensate Tanks: _____	Water Tanks: _____	Separators: _____	Electric Motors: _____
Gas or Diesel Mortors: _____	Cavity Pumps: _____	LACT Unit: _____	Pump Jacks: _____
Electric Generators: _____	Gas Pipeline: _____	Oil Pipeline: _____	Water Pipeline: _____
Gas Compressors: _____	VOC Combustor: _____	Oil Tanks: _____	Dehydrator Units: _____
Multi-Well Pits: _____	Pigging Station: _____	Flare: _____	Fuel Tanks: _____

Location

Signs/Marker:				
Type	Satisfactory/Unsatisfactory	Comment	Corrective Action	CA Date
OTHER	Satisfactory	Location entrance sign.		
TANK LABELS/PLACARDS	Satisfactory			
BATTERY	Unsatisfactory		Install sign to comply with rule 210.b.	04/01/2013
WELLHEAD	Unsatisfactory		Install sign to comply with rule 210.b.	04/01/2013

Emergency Contact Number: (S/U/V) Satisfactory Corrective Date: _____

Comment: _____

Corrective Action: _____

Good Housekeeping:				
Type	Satisfactory/Unsatisfactory	Comment	Corrective Action	CA Date
WEEDS	Unsatisfactory		Control weeds.	04/01/2013

Spills:				
Type	Area	Volume	Corrective action	CA Date
Produced Water	Tank	<= 5 bbls	Clean up oil stained soils within the tank berm.	04/01/2013

Multiple Spills and Releases?

Fencing/:				
Type	Satisfactory/Unsatisfactory	Comment	Corrective Action	CA Date
	Satisfactory			

Equipment:					
Type	#	Satisfactory/Unsatisfactory	Comment	Corrective Action	CA Date
Bird Protectors	2	Satisfactory			
Horizontal Heated Separator	1	Satisfactory			
Emission Control Device	1	Satisfactory			
Gas Meter Run	1	Satisfactory			
Plunger Lift	1	Unsatisfactory	Plunger lift equipment is leaking at multiple points including the master valve.	Repair all leaks and clean up oil at the wellhead.	04/01/2013

Facilities:		<input type="checkbox"/> New Tank	Tank ID: _____	
Contents	#	Capacity	Type	SE GPS
PRODUCED WATER	1	OTHER		
S/U/V:	Satisfactory		Comment:	
Corrective Action:				Corrective Date:
<u>Paint</u>				
Condition	Adequate			
Other (Content)	_____			
Other (Capacity)	150 Bbl. _____			
Other (Type)	_____			
<u>Berms</u>				
Type	Capacity	Permeability (Wall)	Permeability (Base)	Maintenance
Corrective Action				Corrective Date
Comment				

Facilities:		<input type="checkbox"/> New Tank	Tank ID: _____	
Contents	#	Capacity	Type	SE GPS
CRUDE OIL	1	300 BBLS	STEEL AST	40.150570,105.023100
S/U/V:	Satisfactory		Comment:	
Corrective Action:				Corrective Date:
<u>Paint</u>				
Condition	Adequate			
Other (Content)	_____			
Other (Capacity)	_____			
Other (Type)	_____			
<u>Berms</u>				
Type	Capacity	Permeability (Wall)	Permeability (Base)	Maintenance
Earth	Adequate	Walls Sufficent	Base Sufficient	Adequate
Corrective Action				Corrective Date
Comment				

Venting:	
Yes/No	Comment

Flaring:				
Type	Satisfactory/Unsatisfactory	Comment	Corrective Action	CA Date
Ignitor/Combustor	Satisfactory			

Predrill

Location ID: 330147

Site Preparation:

Lease Road Adeq.: _____ Pads: _____ Soil Stockpile: _____
 Corrective Action: _____ Date: _____ CDP Num.: _____

Form 2A COAs:

Comment: _____

CA: _____ **Date:** _____

Wildlife BMPs:

Comment: _____

CA: _____ **Date:** _____

Stormwater:

Erosion BMPs	Present	Other BMPs	Present

Corrective Action: _____ Date: _____

Comments: Erosion BMPs: _____
 Other BMPs: _____

Comment: _____

Staking:

On Site Inspection (305):

Surface Owner Contact Information:

Name: _____ Address: _____
 Phone Number: _____ Cell Phone: _____

Operator Rep. Contact Information:

Landman Name: _____ Phone Number: _____
 Date Onsite Request Received: _____ Date of Rule 306 Consultation: _____

Request LGD Attendance: _____

LGD Contact Information:

Name: _____ Phone Number: _____ Agreed to Attend: _____

Summary of Landowner Issues:

Summary of Operator Response to Landowner Issues:

Onsite Inspection Memorandum Summarizing Discussions at Inspection as Attachment:

Facility

Facility ID: 250707 Type: WELL API Number: 123-18510 Status: PR Insp. Status: PR

Producing Well

Comment: _____

Environmental

Spills/Releases:

Type of Spill: _____ Description: _____ Estimated Spill Volume: _____
 Comment: _____
 Corrective Action: _____ Date: _____
 Reportable: _____ GPS: Lat _____ Long _____
 Proximity to Surface Water: _____ Depth to Ground Water: _____

Water Well: _____ Lat _____ Long _____
 DWR Receipt Num: _____ Owner Name: _____ GPS : _____

Field Parameters: _____

Sample Location: _____

Emission Control Burner (ECB): _____
 Comment: _____
 Pilot: _____ Wildlife Protection Devices (fired vessels): _____

Reclamation - Storm Water - Pit

Interim Reclamation:

Date Interim Reclamation Started: _____ Date Interim Reclamation Completed: _____

Land Use: _____
 Comment: _____

- 1003a. Debris removed? In CM _____
 CA _____ CA Date _____
- Waste Material Onsite? In CM _____
 CA _____ CA Date _____
- Unused or unneeded equipment onsite? In CM _____
 CA _____ CA Date _____
- Pit, cellars, rat holes and other bores closed? _____ CM _____
 CA _____ CA Date _____
- Guy line anchors removed? _____ CM _____
 CA _____ CA Date _____
- Guy line anchors marked? _____ CM _____
 CA _____ CA Date _____

1003b. Area no longer in use? Pass Production areas stabilized ? Pass

1003c. Compacted areas have been cross ripped? Pass

1003d. Drilling pit closed? _____ Subsidence over on drill pit? _____

Cuttings management: _____

1003e. Areas no longer needed for drilling or subsequent operations for have been re-vegetated to 80% of pre-existing? In
 Production areas have been stabilized? Pass Segregated soils have been replaced? Pass

RESTORATION AND REVEGETATION

Cropland

Inspector Name: HICKEY, MIKE

Top soil replaced _____ Recontoured _____ Perennial forage re-established _____

Non-Cropland

Top soil replaced Pass Recontoured Pass 80% Revegetation In

1003 f. Weeds Noxious weeds? I

Comment: _____

Overall Interim Reclamation In Process

Final Reclamation/ Abandoned Location:

Date Final Reclamation Started: _____ Date Final Reclamation Completed: _____

Final Land Use: _____

Reminder: _____

Comment: _____

Well plugged _____ Pit mouse/rat holes, cellars backfilled _____

Debris removed _____ No disturbance /Location never built _____

Access Roads Regraded _____ Contoured _____ Culverts removed _____

Gravel removed _____

Location and associated production facilities reclaimed _____ Locations, facilities, roads, recontoured _____

Compaction alleviation _____ Dust and erosion control _____

Non cropland: Revegetated 80% _____ Cropland: perennial forage _____

Weeds present _____ Subsidence _____

Comment: _____

Corrective Action: _____ Date _____

Overall Final Reclamation _____ Multi-Well Location

Storm Water:

Loc Erosion BMPs	BMP Maintenance	Lease Road Erosion BMPs	Lease BMP Maintenance	Chemical BMPs	Chemical BMP Maintenance	Comment
Seeding		Berms	Pass			

S/U/V: Satisfactory Corrective Date: _____

Comment: _____

CA: _____

**FORM
INSP**

Rev
X/15

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

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



Inspection Date:
11/06/2017
Submitted Date:
11/06/2017
Document Number:
677400017

FIELD INSPECTION FORM

Loc ID 330147 Inspector Name: MONTOYA, JOHN On-Site Inspection 2A Doc Num: _____

Operator Information:

OGCC Operator Number: 39560
Name of Operator: TOP OPERATING COMPANY FDDB MURRAY J
Address: 3609 S WADSWORTH BLVD STE 340
City: LAKESWOOD State: CO Zip: 80235

Status Summary:

- THIS IS A FOLLOW UP INSPECTION
- FOLLOW UP INSPECTION REQUIRED
- NO FOLLOW UP INSPECTION REQUIRED

Findings:

1 Number of Comments
0 Number of Corrective Actions
 Corrective Action Response Requested

Contact Information:

Contact Name	Phone	Email	Comment
Herring, Paul	303-727-9915	paul.herring@topoperating.com	
Deranleau, Greg		greg.deranleau@state.co.us	

Inspected Facilities:

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	Insp Status
250707	WELL	SI	04/01/2017	GW	123-18510	LONGMONT 8-10K	PA

General Comment:

Inspected Facilities

Facility ID: 250707 Type: WELL API Number: 123-18510 Status: SI Insp. Status: PA

COGCC Comments

Comment	User	Date
WELL WAS PA ON 10/31/17 THEY ARE IN PROCESS OF GETTING EQUIPMENT OF OF LOCATION	montoyaj	11/06/2017

FORM NO. GWS-3 11/90	WELL CONSTRUCTION AND TEST REPORT STATE OF COLORADO, OFFICE OF THE STATE ENGINEER	For Office Use only RECEIVED DEC 16 1999 WATER RESOURCES STATE ENGINEER COLO.																																																																																																																																																																																		
1. WELL PERMIT NUMBER <u>File Number MH-37218</u>																																																																																																																																																																																				
2. OWNER NAME(S) <u>City of Longmont</u> <u>223467</u> Mailing Address <u>375 Airport Road</u> City, St. Zip <u>Longmont, Colorado 80503</u> Phone (<u>303</u>) <u>572-0719</u>																																																																																																																																																																																				
3. WELL LOCATION AS DRILLED: <u>SW 1/4 NE 1/4, Sec. 8 Twp. 2 N, Range 68 W</u> DISTANCES FROM SEC. LINES: <u>2600</u> ft. from <u>North</u> Sec. line. and <u>2500</u> ft. from <u>East</u> Sec. line. OR <small>(north or south) (east or west)</small> SUBDIVISION: <u>N/A</u> LOT <u> </u> BLOCK <u> </u> FILING(UNIT) <u> </u> STREET ADDRESS AT WELL LOCATION: <u>N/A</u>																																																																																																																																																																																				
4. GROUND SURFACE ELEVATION <u>Not avail.</u> ft. DRILLING METHOD <u>Hollow stem auger - 8 inch OD.</u> DATE COMPLETED <u>October 25, 1999</u> TOTAL DEPTH <u>13.9</u> ft. DEPTH COMPLETED <u>12.5</u> ft.																																																																																																																																																																																				
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11. DISINFECTION: Type <u>N/A</u> Amt. Used <u> </u>																																																																																																																																																																																				
12. WELL TEST DATA: <input type="checkbox"/> Check box if Test Data is submitted on Supplemental Form. TESTING METHOD <u>N/A</u> Static Level _____ ft. Date/Time measured _____, Production Rate _____ gpm. Pumping level _____ ft. Date/Time measured _____, Test length (hrs.) _____ Remarks _____																																																																																																																																																																																				
13. I have read the statements made herein and know the contents thereof, and that they are true to my knowledge. [Pursuant to Section 24-4-104 (13)(a) C.R.S., the making of false statements herein constitutes perjury in the second degree and is punishable as a class 1 misdemeanor.] CONTRACTOR <u>Dakota Drilling Inc.</u> Phone <u>(303) 893-2810</u> Lic. No. _____ Mailing Address <u>1340 Umatilla Street Denver, Colorado 80204</u>																																																																																																																																																																																				
Name/Title (Please type or print) <u>Edward J. Pottorff P.G. / Hydrogeologist</u>	Signature <u>Edward J. Pottorff</u>	Date <u>12/13/99</u>																																																																																																																																																																																		

Form No.
GWS-25

**OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES**

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

AUTH

APPLICANT

WELL PERMIT NUMBER 223467
DIV. 1 WD 5 DES. BASIN MD

DOTY & ASSOCIATES
20011 GOLDEN GATE CYN RD #100
GOLDEN, CO 80403-

(303) 279-9181

APPROVED WELL LOCATION

WELD COUNTY
SW 1/4 NE 1/4 Section 8
Township 2 N Range 68 W Sixth P.M.

DISTANCES FROM SECTION LINES

2600 Ft. from North Section Line
2500 Ft. from East Section Line

PERMIT TO CONSTRUCT A WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT
CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
- 3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
- 4) Approved for the use of an existing well acknowledged for construction under monitoring hole notice MH-37218, and is known as MW-4C.
- 5) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
- 6) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
- 7) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 15 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
- 8) The owner shall mark the well in a conspicuous place with well permit number(s) and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
- 9) This well must have been constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules.
- 10) This well must be located not more than 200 feet from the location specified on this permit.

NOTE: Construction Variance 99-153A.

JMW 2/1/00

APPROVED
JMW

Hal D. Simpson
State Engineer

Kevin B. Rain
By

Receipt No. 0454451

DATE ISSUED **FEB 16 2000**

EXPIRATION DATE **FEB 16 2002**

RECEIVED

DEC 16 1999

MONITORING/OBSERVATION

Water Well Permit Application

Review instructions prior to completing form.

Must be completed in black ink or typed

1. APPLICANT INFORMATION				6. USE OF WELL			
Name of applicant Doty & Associates				<input checked="" type="checkbox"/> GROUND WATER SAMPLING (quality) <input checked="" type="checkbox"/> MONITOR WATER LEVELS <input type="checkbox"/> OTHER:			
Mailing Address 20011 Golden Gate Canyon Road Suite 100				7. WELL DATA			
City Golden		State Colorado		Total depth 12.3 feet		Aquifer Alluvial	
Zip code 80403				8. CONSULTANT INFORMATION (optional)			
Telephone number (include area code) (303)279-9181				Name Doty & Associates			
2. TYPE OF APPLICATION (check applicable box(es))				Address 20011 Golden Gate Canyon Rd Suite 100 Golden, Colorado 80403			
<input type="checkbox"/> Use existing well		<input type="checkbox"/> Replacement for --		Telephone number (include area code) (303)279-9181			
<input checked="" type="checkbox"/> Construct new well		permit no. _____		9. PROPOSED WELL DRILLER (optional)			
<input type="checkbox"/> Other:				Company name Dakota Drilling, Inc.		License number	
3. REFER TO (if applicable):				10. SIGNATURE of applicant(s) or authorized agent			
Monitoring hole acknowledgment # MH- 37218		Well name or # MW-4c		The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 mis- demeanor pursuant to C.R.S. 24-4-104(13)(a). I have read the statements herein, know the contents thereof, and state that they are true to my knowledge.			
4. LOCATION OF WELL				Must be original signature <i>Edward J. Pottorff</i>			
County Weld		Quarter/quarter SW ¼		Quarter NE ¼		Print name legibly Edward J. Pottorff, P.G.	
Section 8	Township N or S 2	Range E or W 68	Principal Meridian 6th	Title Hydrogeologist		Date 12/13/99	
Distance of well from section lines 2600 ft. from <input checked="" type="checkbox"/> N <input type="checkbox"/> S 2500 ft. from <input checked="" type="checkbox"/> E <input type="checkbox"/> W				See the reverse side of this form for instructions, fee, and advisory information			
Well location address, if different from applicant address (if applicable) N/A				OPTIONAL INFORMATION			
For replacement wells only - distance and direction from old well to new well feet direction				USGS map name Longmont Quadrangle		DWR map no.	Surface elev.
5. OWNERSHIP INFORMATION				Office Use Only NIT ✓ Notice ✓ ly ✓ const - Var. 99-153A loc ✓			
WELL OWNER NAME (if different than applicant) City of Longmont				CHECKS TRW454451 121699 DIV OF WATER RESOURCES			
Address 375 Airport Road				DIV <u>1</u>			
City Longmont		State Colorado		Zip Code 80503		CO _____	
Telephone no. (include area code) (303)572-0719				WD <u>5</u>			
PROPERTY OWNER NAME (if different than above)				BA _____			
Address				USE _____			
City		State		Zip Code		MD _____	
Telephone no. (include area code)							

STATE OF COLORADO

BOARD OF EXAMINERS OF WATER WELL CONSTRUCTION AND PUMP INSTALLATION CONTRACTORS
Division of Water Resources

1313 Sherman Street, Room 818
Denver, CO 80203
Phone (303) 866-3581
FAX (303) 866-3589

<http://boe.state.co.us>

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OCT 25 1999 October 15, 1999

DOTY & ASSOCIATES

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DEC 16 1999

WATER RESOURCES
STATE ENGINEER
COLO.



Bill Owens
Governor

Greg E. Walcher
Executive Director, DNR

Hal D. Simpson, P.E.
Secretary

Mr. Edward J. Pottorff, P.G.
Doty & Associates Environmental, Ground-Water and Waste Management Engineers
20011 Golden Gate Canyon Road
Golden, CO 80403-8125

RE: Request for Blanket Variance, Monitoring and Observation Holes

Request No: 99-153A

Dear Mr. Pottorff:

Thank you for the Request for Variance received on October 8, 1999 regarding monitoring and observation holes. Your request has been reviewed for the Board of Examiners of Water Well Construction and Pump installation Contractors. The request is specifically for a variance from Rules 10.3, 10.4.2, 10.4.3, 10.4.6, 10.4.7 and 10.5.2.1.

Pursuant to Rule 18 and the authority granted by the Board, a blanket variance to Rules 10.3, 10.4.2, 10.4.3, 10.4.6, 10.4.7 and 10.5.2.1 is granted subject to the following conditions:

- 1) The well construction will be in accordance with the Water Well Construction Rules except those Rules for which a variance was granted.
- 2) The Monitoring holes shall be constructed in a similar manner to the diagrams provided. In some instances it may be necessary to obtain a site specific variance when the construction of monitoring and observation wells differ significantly from the standard construction described.
- 3) If the wells and/or monitoring holes are to be permanent installations for more than one year, a permit must be obtained from the Division of Water Resources
- 4) Please provide a copy of this blanket variance approval with the Notice of Intent to Construct Monitoring Holes, Permit Applications or Work Reports submitted to this office.

Granting the request for variance to minimum water well construction standards does not relieve the owner of potential responsibility or liability in the event contamination of the water source results from such construction, nor does the grantor assume any responsibility or liability should contamination occur.

If you have any questions regarding this matter please contact this office.

Sincerely,


George D. VanSlyke
Chief, Geotechnical Services

GDV/gla:s:\bordexam\variance99\99-153A.doc

DOTY & ASSOCIATES

ENVIRONMENTAL, GROUND-WATER AND WASTE MANAGEMENT ENGINEERS

20011 GOLDEN GATE CANYON ROAD
SUITE 100
GOLDEN, COLORADO 80403-8125

TELEPHONE: (303) 279-9181
FAX: (303) 279-9186

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WATER RESOURCES
STATE ENGINEER
COLO.

December 13, 1999
1207-05

Office of the State Engineer
Division of Water Resources
1313 Sherman Street
Room 818
Denver, Colorado 80203

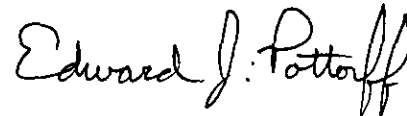
Subject: Well Construction and Test Report Form and
Monitoring Well Permit Application
File Number MH-37218
Section 8, T2N, R68W
Weld County, Colorado

Dear Sir or Madam:

Attached please find the GWS-31 Well Construction and Test Report form (original and one copy), the permit application (form GWS-46), and a check for \$60.00 for one new monitoring well installed at the location referenced above. Please note that the forms are signed by a Doty & Associates representative. The well boring did not penetrate a confining layer; therefore, Doty & Associates is serving as the "authorized individual" for well design and construction described in rule 7.1 of the Water Well Construction Rules. A copy of our approved blanket variance (request no. 99-153A) is also enclosed for your convenience.

I trust that the foregoing is complete enough for your review and evaluation. Please call if you have questions or need additional information.

Sincerely,
DOTY & ASSOCIATES



Edward J. Pottorff, P.G.

cc: Richard Lee (w/ attachments)

LOG OF BORING

BORING NO. MW-4c
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SHEET 1 OF 1

DEC 16 1999

PROJECT: LONGMONT LANDFILL
DATE DRILLED: 10/25/99
METHOD: 4.25-INCH I.D. (8-INCH O.D.) HOLLOW STEM AUGERS
COORDINATES: NOT AVAILABLE

WATER RESOURCES
STATE ENGINEER
COLO.
GROUND ELEVATION: NOT AVAILABLE

DEPTH (FEET)	MATERIAL DESCRIPTION	SAMPLER/BIT	% RECOVERY	BLOW COUNT		OTHER
				SAMPLE NO.	BLOW COUNT	
1	(0.0 - 0.3 ft.) Dark yellowish brown (10 YR 4/2) and dusky yellowish brown (10 YR 2/2), mottled, fine to coarse subangular silty SAND, trace to some clay, trace roots, dry to damp, highly calcareous (SM)		94	1	7	Began Drilling at 10:50 am 10/25/1999
2				2	8	
3	(0.3 - 5.7 ft.) Moderate yellowish brown (10 YR 5/4) with dark yellowish brown (10 YR 4/2) patches, mottled, fine to medium subangular to subrounded SAND, some silt, trace roots, trace iron oxide stained patches, dry to damp, highly calcareous (SP-SM)					
4						
5						
6	(5.7 - 10.7 ft.) Dark yellowish brown (10 YR 4/2), fine to coarse subangular to subrounded clayey SAND and sandy CLAY, trace to some silt, trace roots, moist, highly calcareous (SC-CL)		100	3	4	Darker cuttings at about 6 ft.
7				4	4	
8	from about 7 ft., becoming gravelly					
9	from 10 ft., becoming predominantly clayey and silty SAND, moderately to highly calcareous (SC-SM)					
10	(10.7 - 12.6 ft.) Dark yellowish orange (10 YR 6/6) and moderate yellowish brown (10 YR 5/4), mottled, coarse subangular gravelly SAND, trace silt, wet, slightly to non-calcareous (SP)		100	5	13	Split barrel wet at about 11 ft.
11				6	17	
12	(12.6 - 13.0 ft.) Dark yellowish brown (10 YR 4/2) and brownish gray (5 YR 4/1), mottled, fine to medium subangular clayey SAND, trace to some silt, moist, slightly calcareous (SC)		100	7	2	TD @ 13.9 ft. 11:20 am on 10/25/1999
13				8	50	
14	(13.0 - 13.9 ft.) Brownish gray (5 YR 4/1) and olive gray (5 Y 2/1), mottled, sandy CLAYSTONE with streaks clayey fine SANDSTONE, trace to some silt, damp, non-calcareous (BEDROCK)					
15						
16						
17						
18						
19						
20						

DOTY & ASSOCIATES 1207-05 10/29/99

Split Barrel Sampler/ 4.25-inch I.D. (8-inch O.D.) Hollow Stem Augers