# INITIAL C-141 AND REMEDIATION WORK PLAN

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Description   State of New Mexico.   Form C-141     Description   Average, Arres, NM 58210   State of New Mexico.   Form C-141     Description   Average, Arres, NM 58210   State of New Mexico.   Form C-141     Description   Average, Arres, NM 5700   State of Conservation Division   Submit 2 Copies on appropriate Division     DOB Kin Prevent, Arres, NM 5700   State Fe, NM 87505   RECEIVED   Submit 2 Copies on appropriate Division     DOB Kin Prevent, Arres, NM 5700   State Fe, NM 87505   RECEIVED   Submit 2 Copies on appropriate Division     Name of Company   COG OPERATING ILC   Contact   Pare Ellis   Address     Address   Sign Terrole, Target Ter			HOBBS OCD
Diff. Wines, Anse, MM 8210   Diff. Conservation Division   Summark Conservation Division     Diff. Of Conservation Division   Diff. Conservation Division   Summark Division     Diff. Of Conservation Division   Diff. Conservation Division   Summark Division     Diff. Of Conservation Division   Diff. Conservation   Summark Division     Diff. Of Conservation Division   Diff. Conservation   Summark Division     Diff. Of Conservation   Diff. Conservation   Diff. Diff	1625 N. French Dr., Hobbs, NM 88240		
Daratic Dr.   RECEIVED   with Rule 116 on back Sont a Fe, NM 87505     Start Fe, NM 87505   Senta Fe, NM 87505   with Rule 116 on back sold of form     Name of Company   OOE OPERATING   Senta Fe, NM 87505   Initial Report   Final Report     Name of Company   OOE OPERATING LIC   Contact   Par Ellis   Initial Report   Final Report     Address   550 W. Texas, Suite 100, Midland, TX 79701   Telephene No. 432:230-0077   Fourities   Fourities     Surface Owner   Federal   Mineral Owner   Lease No. (API#) 30-005-27999     LOCATION OF RELEASE   Unit Letter   Section   Toorship   Range   Fest from the   North/South Link   Fest from the   Last/West Line   Courry   Chaves     Source of Release   Produced fluid   Volume Release 30bbis   Volume Revovered 25bbis   Source and Hour Of Sourcevere   Good 7001   8:00 a.m.   Was turnediate Notice Given?   Source of Release 7:00-000   Det and Hour of S020201   Des on Mour Of Sourcevere   Source of Release 2:00-000   Det and Hour of S020201   Boo a.m.   Was turnediate Notice Given?   Source of Release 1:00-000   Telephene All flow of Duscevery GS01/2011   Boo a.m.   Wasturnediate Notice Given?   Fest Son No <td< td=""><td>1301 W. Grand Avenue, Artesia, NM 88210</td><td>:</td><td></td></td<>	1301 W. Grand Avenue, Artesia, NM 88210	:	
1230 5 St. Practs Dr., Same Fe, NM 97303   Santa Fe, NM 87505.   ride of form     Release Notification and Corrective Action     OPERATOR   Imitial Report   Final Report     Name of Company   COG OPERATING LLC   Contact   Pat Ellis     Address   S50 W. Texas, Suite 100, Midland, TX 79701   Telephone Ne. 432-309-0077   Final Report     Surface Owner   Federal   Mineral Owner   Loss CATION OF RELEASE     Unit Letter   Section   Torniship   Range   Feet from the   North/South Line   Feet from the   Couves     Lastrade 33 01.018   Longitude 103 49.058   Volume Recovered 25bbls   Couves   Claveis     Surface Owner   Federal   Volume of Release 30this   Volume Accovered 25bbls   Claveis     Lastrade 33 01.018   Longitude 103 49.058   State and Hour of States   Claveis   Claveis     Was Immediate Notice Given?   Ø Yes   No   Not Required   Volume Accovered 25bbls   Claveis     Was a Watercourse was Impacted, Describe Fully*   Octowas   Geodifyee Leking—OCD   Date and Hour OS/02/2011   0.050/201   8.00 a.m.     Was a Watercourse was Impacted, Describe Fully*   Octowas and th	1000 Rio Brazos Road, Aztec, NM 87410		
Release Notification and Corrective Action     OPERATOR   Initial Report   Final Report     Name of Company   COG OPERATING LLC   Contact   Pat Ellis   Address   Solution (Address)   Solution (A		•	
OPERATOR   Initial Report   Final Report     Name of Company   COG OPERATING LLC   Contact   Pat Elis   Address   Solv   Texas, Buile 100, Midland, TX 19701   Facility Type   Flowline   Coantex   Flowline   Flowline   Flowline   Flowlin			
Name of Company   COG OPEEATING LLC   Contact   Part Eliss     Address   350 W. Texas, Suite 100, Midland, TX 79701   Facility Name   432-230-0077     Facility Name   Hercules Federal Com #1   Facility Name   Lesse No. (API#) 30-005-27999     LocATION OF RELEASE   Lesse No. (API#) 30-005-27999   LOCATION OF RELEASE     Unit Letter   Section   Township   Range   For from the   DearWest Line   Councy     Linit Letter   Section   Township   Range   For from the   DearWest Line   Councy     Linit Letter   Section   Township   Range   For from the   DearWest Line   Councy     Linit Letter   Section   Township   Range   For for the section   Date and How of Discovery     Source of Release   Flowline   Obstant How of Discovery   Discovery   Discovery     Source of Release   Flowline   Not Mequined   Type of Release Bobbis   Volume Recovered 259bis     Source of Release   Flowline   Obstant   Obstant   Discovery   Discovery     Source of Release   Flowline   Not Mequined   Obstant   Obstant   Discovery	Release Notificat		
Address   550 W. Texas, Suite 100, Midland, TX 79701   Telephone No.   432-230-0077     Facility Name   Hercules Federal Com #1   Facility Type   Flowline     Surface Owner   Federal   Mineral Owner   Lease No. (API#) 30-005-27999     Lock ATION OF RELEASE   Intervalues Federal   North/South Link:   Feer from the   Lease No. (API#) 30-005-27999     Unit Letter   Section   Towiship   Range   Feer from the   North/South Link:   Feer from the   Couves     Unit Letter   15   31E   Feer from the   North/South Link:   Feer from the   Couves     Unit Letter   15   15%   31E   Feer from the   North/South Link:   Feer from the   Couves     Source of Release   Produced fluid   Volume 67 Release 30bbh   Volume Recovered 25bbls   Source 07     Was Immediate Notice Given?   Yes   Nort Required   Date and Hour Of Discovery   0301/2011   8.00 Ann.     Was a Watercourse Reached?   If YES, To When?   Gout @ 10/201   03.00 Ann.   If YES, Volume Impacting the Watercourse     Was a Watercourse Reached?   If Yes   Not Required   If YES, Volume Impacting the Watercourse   <	Name of Company COG OPERATING LLC		
Facility Name   Hercules Federal Com.#I   Facility Type   Flowline     Surface Owner   Federal   Mineral Owner   Lease No. (API#) 30-005-27999     Location OF RELEASE   Lease No. (API#) 30-005-27999   LOCATION OF RELEASE     Unit Letter   Section   Township   Range:   Feet from the   Iss/West Line   County     E   15   Township   Range:   Feet from the   Nortu/South Line   Feet from the   East/West Line   County     Chaves   31E   Feet from the   Nortu/South Line   Feet from the   East/West Line   County     Lastitude 33 01.018   Longitude 103 49.058   Nolume Recovered 25bbls   Source of Release Flowline   Date and Hour of Discovery   05(01/2011   8.00 a.m.     Was Immediate Notice Given?   If YES, To Whom?   If S. To Whom?   Gouden 7.502/2011   10.45 a.m.     Was a Watercourse Reached?   Yes. B No   If YES, Volume Impacting the Watercourse   If YES, Volume Impacting the Watercourse     Describe Cause of Problem and Remedial Action Taken.*   Counce 2.502/201   10.45 a.m.     Describe Cause of Problem and Remedial Action Taken.*   Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able			
LOCATION OF RELEASE     Unit Letter   Section   Towiship   Range 135   Feet from the 135   North/South Line   Feet from the Peet from the 135   East/West Line   Country Chaves     Latitude 33 01.018   Longitude 103 49.058   NATURE OF RELEASE   Volume Recovered 25bbls     Type of Release   Produced fluid   Volume of Relaxe 30bbls   Volume Recovered 25bbls     Source of Release   Flow flow   Date and Hour of Occurrence 05/01/2011   Date and Hour of Decovered 05/01/2011   0.04 a.m.     Was Immediate Notice Given?   Yes   No   Not Required   Produced fluid   Produced fluid     Was Immediate Notice Given?   Yes   No   Not Required   Produced fluid   Produced fluid   Produced fluid     Was a Watercourse Keachel?   Yes   No   Date and Hour 05/02/2011   1045 a.m.     If a Watercourse was Impacted, Describe Fully.*   Chuige 2 & Gol   Describe Area Affected and Remedial Action Taken.*     Due to high pressure, the poly flowline ruptured at the Horatles Federal Com #1 location. The poly flowline has been fluided was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum truck. The spill area area and the affected area has been strand off of the well pol docation. A mist of of waso corresprayed in the pasture runned into service.		Facility Type F	lowline
Unit Letter   Section   Township   Range 15S   Feet from the 31E   North/South Line   Feet from the Latitude 103 49.058   County Chaves     Latitude 33 01.018   Longitude 103 49.058     NATURE OF RELEASE     Type of Release   Produced fluid   Volume of Release 300hls   Volume Recovered 25bbls     Source of Release   Flow of Release 300hls   Volume Recovered 25bbls   Date and Hour of Discovery 0501/2011     Was Immediate Notice Given?   No   Not Required   Geoffrey Leking—OCD     By Whom?   Josh Russo   Date and Hour of Succeiverse   Count     Was a Watercourse was Impacted, Describe Fully.*   Count   Count   Count   Count     Describe Cause of Problem and Remedial Action Taken.*   If YES. Volume Impacting. The poly flowline has been fused back together and returned into service.   The poly flowline ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Cause of Problem and Remedial Action Taken.*   Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum ruck. The spill area occurred to the west of the location on an area of the pad that has been downsized as part of an interin reclamation. The spill area messared 0% a 10% or 3% or 3%     Standing fluid h	Surface Owner Federal Mineral Own	er	Lease No. (AP1#) 30-005-27999
Unit Letter   Section   Township   Range 15S   Feet from the 31E   North/South Line   Feet from the Latitude 103 49.058   County Chaves     Latitude 33 01.018   Longitude 103 49.058     NATURE OF RELEASE     Type of Release   Produced fluid   Volume of Release 300hls   Volume Recovered 25bbls     Source of Release   Flow of Release 300hls   Volume Recovered 25bbls   Date and Hour of Discovery 0501/2011     Was Immediate Notice Given?   No   Not Required   Geoffrey Leking—OCD     By Whom?   Josh Russo   Date and Hour of Succeiverse   Count     Was a Watercourse was Impacted, Describe Fully.*   Count   Count   Count   Count     Describe Cause of Problem and Remedial Action Taken.*   If YES. Volume Impacting. The poly flowline has been fused back together and returned into service.   The poly flowline ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Cause of Problem and Remedial Action Taken.*   Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum ruck. The spill area occurred to the west of the location on an area of the pad that has been downsized as part of an interin reclamation. The spill area messared 0% a 10% or 3% or 3%     Standing fluid h	LOCAT	ION OF RELEASE	
E   15   15   31E     Latitude 33 01.018   Longitude 103 49.058     NATURE OF RELEASE     Type of Release   Produced fluid   Volume of Release 30bbis   Volume Recovered 25bbis     Source of Release   Flowfine   Date and Hour of Occurrence   Date and Hour of Discovery     05/01/2011   65/01/2011   60/02   65/01/2011   8/00 a.m.     Was Immediate Notice Given?   If YES, To Whom?   Geoffrey Leking—OCD   5/01/2011   8/00 a.m.     Was a Watercourse Reached?   If YES, Volume Impacting the Watercourse.   If Was a Watercourse Reached?   If YES, Volume Impacting the Watercourse.     By Whom?   Josh Russo   Gut @ 2.6 dl   Describe Cause of Problem and Remedial Action Taken.*     Due to high pressure, the poly flowine ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.   The spill area moasured 20' x 2''. Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was orestrapared in the pasture and the affrected and has been removed and any contaminated soil has been removed to the spasture and we will pressure in a remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand the pursuent to NMOCD action to any signification. A mist of oil			East/West Line County
NATURE OF RELEASE     Type of Release   Produced fluid   Volume and Hour of Decarrence   Ostign 2011     Source of Release   Flowline   Date and Hour of Occurrence   Date and Hour of Discovery     Was Immediate Notice Given?   Yes   No   Nor Required   Geoffrey Leking—OCD     By Whom?   Josh Russo   Date and Hour   05/01/2011   10/45 a.m.     Was a Watercourse Reached?   If YES, To Whom?   Geoffrey Leking—OCD     Describe Cause of Problem and Remedial Action Taken.*   GGU GO 2.6 G1     Describe Cause of Problem and Remedial Action Taken.*   GGU GO 2.6 G1     Describe Area Affected and Cleanup Action Taken.*   Initially 30bbis of produced fluid was released from the ruptured poly flowline and we were able to recover: 25bbis with a vacuum track. The spill area cocurred to the west of the Iocation on an area of the pad that has been downsized as part of an interim reclamation. The spill area measured 20 * x75'.     Standing fluid has been removed and any contaminated suil has been form store arcsped off of the well pad location. The spill area measured 20 * x75'.     Standing fluid has been removed and any contaminated suil has been form aproval prior to any significant remediation work.     Thereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and required to repat and/or file cartian recleans addre free dratian recle			
NATURE OF RELEASE     Type of Release   Produced fluid   Volume and Hour of Decarrence   Ostign 2011     Source of Release   Flowline   Date and Hour of Occurrence   Date and Hour of Discovery     Was Immediate Notice Given?   Yes   No   Nor Required   Geoffrey Leking—OCD     By Whom?   Josh Russo   Date and Hour   05/01/2011   10/45 a.m.     Was a Watercourse Reached?   If YES, To Whom?   Geoffrey Leking—OCD     Describe Cause of Problem and Remedial Action Taken.*   GGU GO 2.6 G1     Describe Cause of Problem and Remedial Action Taken.*   GGU GO 2.6 G1     Describe Area Affected and Cleanup Action Taken.*   Initially 30bbis of produced fluid was released from the ruptured poly flowline and we were able to recover: 25bbis with a vacuum track. The spill area cocurred to the west of the Iocation on an area of the pad that has been downsized as part of an interim reclamation. The spill area measured 20 * x75'.     Standing fluid has been removed and any contaminated suil has been form store arcsped off of the well pad location. The spill area measured 20 * x75'.     Standing fluid has been removed and any contaminated suil has been form aproval prior to any significant remediation work.     Thereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and required to repat and/or file cartian recleans addre free dratian recle	1	10 Ton-ind- 102 40 000	
Type of Release   Produced fluid   Volume of Release 30bbls   Volume Recovered 25bbls     Source of Release   Flowline   Date and Hour of Occurrence   Date and Hour of Discovery     Was Immediate Notice Given?   Date and Hour of Source of Release   Date and Hour of Discovery     By Whom?   Josh Russio   Date and Hour of Source of Release   Date and Hour of Source of Release     By Whom?   Josh Russio   Date and Hour of Source of Release   Geoffrey Leking—OCD     By Whom?   Josh Russio   Date and Hour of Source of Release   Geoffrey Leking—OCD     By Whom?   Josh Russio   Date and Hour of Source of Release   Geoffrey Leking—OCD     By Whom?   Josh Russio   Date and Hour of Source of Release   Geoffrey Leking—OCD     Describe Cause of Problem and Remedial Action Taken.*   If YES, Volume Impacting the Watercourse.   If YES, Volume Impacting the Watercourse of the Iotation on an area of the pad that has been downsized as part of an interim reclaration. The spill area measured 20 × 75'.     Standing fluid has been removed and any containated soil has been streney del location. A mist of oil was overspresed into the pasture and the affected area has been straved into the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is rule and complete to the best of ny knowledge and understand that pursuant to NM		· · · · · · · · · · · · · · · · · · ·	
Source of Release   Flowline   Date and Hour of Occurrence 05/01/2011   Date and Hour of Occurrence 05/01/2011   Date and Hour of Oscovery 05/01/2011   Bate and Hour of Discovery 01/			· · · · · · · · · · · · · · · · · · ·
05/01/2011   05/01/2011   8:00.a.m.     Was Immediate Notice Given?   If YES, To Whom?   Geoffrey Leking—OCD     By Whom?   Josh Russo   Date and Hour   05/01/2011   10:45 a.m.     Was a Watercourse Reached?   If YES, Volume Impacting the Watercourse.   If YES, Volume Impacting the Watercourse.   If YES, Volume Impacting the Watercourse.     Describe Cause of Problem and Remedial Action Taken.*   CGUIII   0:00.0   2.60.1     Describe Cause of Problem and Remedial Action Taken.*   CGUIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII			
Was Immediate Notice Given?   If YES, To Whom?   Geoffrey Leking—OCD     By Whom?   Josh Russo   Date and Hour   05/02/2011   10.45 a.m.     Was a Watercourse Reached?   Yes. Impacted Describe Fully.*   If YES, Volume Impacting the Watercourse.   If YES, Volume Impacting the Watercourse.     Describe Cause of Problem and Remedial Action Taken.*   If YES, Volume Impacting the Watercourse.   If YES, Volume Impacting the Watercourse.     Describe Cause of Problem and Remedial Action Taken.*   If I location. The poly flowline has been fused back together and returned into service.     Describe Area Affected and Cleanup Action Taken.*   Initially 30bbis of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbis with a vacuum truck. The spill area measured 20 x 75.     Standing fluid has been removed and any contaminated soil has been downsized as part of an interim reclamation. The spill area measured 20 x 75.     Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Text Text will site are to delineation. The spill area measured 20 x 75.     Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with immeroblaze. Text Text will site area to delineation. The spill area measured 20 x 75.     Standing fluid has been removed and ony co	Source of Release Flowline		
By Whom?   Josh Russo   Date and Hour   05/02/2011   10.45 a.m.     Was a Watercourse Reached?   If YES, Volume Impacting the Watercourse.   If YES, Volume Impacting the Watercourse.     If a Watercourse was Impacted, Describe Fully.*   Gu G 2.601     Describe Cause of Problem and Remedial Action Taken.*   Gu G 2.601     Due to high pressure, the poly flowline ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Area Affected and Cleanup Action Taken.*     Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum truck. The spill area neasured 20 × 75.     Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tera Tech will site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my contaminent. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not release with any other federal, state, or local laws and/or regulations.     Signature:   Josh Russo     Printed Name:   Josh Russo     Title:   HSE Coordinator     Approved by Distried Supervisor.<		If YES, To Whom?	
Was a Watercourse Reached?   Yes Ø No     If a Watercourse was Impacted, Describe Fully.*   GW @ 2.60     Describe Cause of Problem and Remedial Action Taken.*   Due to high pressure, the poly flowline nuptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Area Affected and Cleanup Action Taken.*   Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover. 25bbls with a vacuum truck. The spill area occurred to the west of the location on an area of the pad that has been downsized as part of an interim reclamation. The spill area measured 20' x 75'.     Standing fluid has been forword and any contaminated soil has been scareped off of the well pad location. A mits of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/ JBLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. In addition, NMOCD acceptance of a C-141 report does not relive the operator of liability so compliance with any other federal, state, or local laws and/or regulations.     Signature:   Josh Russo   Approved by District Supervisor:   Josh Russo     Title:<			
If a Watercourse was Impacted, Describe Fully.*     Describe Cause of Problem and Remedial Action Taken.*     Due to high pressure, the poly flowline ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Area Affected and Cleanup Action Taken.*     Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum truck. The spill area coccurred to the west of the location on an area of the pad that has been downsized as part of an interim reclamation. The spill area measured 20' x 75'.     Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD Damarked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. The acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal laws and/or regulat			
GWG1 Z G0     Describe Cause of Problem and Remedial Action Taken.*     Due to high pressure, the poly flowline ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Area Affected and Cleanup Action Taken.*     Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum truck. The spill area occurred to the west of the location on an area of the pad that has been downsized as part of of an interim reclamation. The spill area measured 20 * a 75.     Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mis of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endager public health or the environment. In addition, NMOCD acceptance of a C-141 report by the NMOCD marked as "final Report" does not releave the operator of liability for compliance with any other federal, state, or local laws and/or regulations.     Signature:   Josh Russo     Title:   HSE Coordinator     Approval Date:   Q1 Z 2 111     Expi	🔲 Yes 🖾 No		
Describe Cause of Problem and Kemedial Action Taken.*     Due to high pressure, the poly flowline ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Area Affected and Cleanup Action Taken.*     Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover. 25bbls with a vacuum truck. The spill area. occurred to the west of the location on an area of the pad that has been downsized as part of an interim reclamation. The spill area measured 20 × 75.     Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. In addition, MMOCD acceptance of a C-141 report by the NMOCD marked as "Final Report" does not release with any other federal, state, or local haws and/or regulations.     Signature:   Josh Russo     Printed Name:   Josh Russo     Title:   HSE Coordinator     Approval Date: 9   2.2   11   Expiration Date: 11/2.2   11	If a Watercourse was Impacted, Describe Fully.*	· · · · · · · · · · · · · · · · · · ·	
Due to high pressure, the poly flowline ruptured at the Hercules Federal Com #1 location. The poly flowline has been fused back together and returned into service.     Describe Area Affected and Cleanup Action Taken.*     Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover. 25bbls with a vacium truck. The spill area occurred to the west of the location on an area of the pad that has been downsized as part of an interim reclamation. The spill area measured 20° x 75'. Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tera Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform dore store scions for releases which may endanger public health or the environment. In addition, NMOCD acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.     Signature:   Josh Russo     Tritle:   HSE Coordinator	Describe Course of Dashlam and Demodial Assists Takan #	· · · · · · · · · · · · · · · · · · ·	GWBIZ60
into service.     Describe Area Affected and Cleanup Action Taken.*     Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum truck. The spill area occurred to the west of the location on an area of the pad that has been downsized as part of an interim reclamation. The spill area measured 20' x 75'. Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releave the operator of liability should their operators are required to report and/or file certain release notifications and perform corrective actions for releave the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. The acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.     Signature:   Josh Russo     Printed Name:   Josh Russo     Title:   HSE Coordinator     Approval Date: 9   2.2   1.   Expiration Date: 11   2	Describe Cause of Problem and Remedial Action Taken."		
Initially 30bbls of produced fluid was released from the ruptured poly flowline and we were able to recover 25bbls with a vacuum truck. The spill area measured 20' x 75'. Standing fluid has been removed and any contaminated soil has been scraped off of the well pad location. A mist of oil was oversprayed into the pasture and the affected area has been sprayed with microblaze. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for approval prior to any significant remediation work.     I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public heakth or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.     Signature:		al Com #1 location. The poly flow	wline has been fused back together and returned
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regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.     Signature:   OIL CONSERVATION DIVISION     Signature:   Find Russo     Printed Name:   Josh Russo     Title:   HSE Coordinator     Approval Date:   9 22 11     E-mail Address:   jrusso@conchoresources.com     Date:   05/05/2011     Phone:   432-212-2399	occurred to the west of the location on an area of the pad that has been Standing fluid has been removed and any contaminated soil has been and the affected area has been sprayed with microblaze. Tetra Tech w	downsized as part of an interim r scraped off of the well pad location ill sample the spill site area to del	eclamation. The spill area measured 20' x 75'. A mist of oil was oversprayed into the pasture ineate any possible contamination from the release
Signature:   OIL CONSERVATION DIVISION     Signature:   Josh Russo   FWV KNGHARER:     Printed Name:   Josh Russo   FWV KNGHARER:     Title:   HSE Coordinator   Approval Date: 9   22   11   Expiration Date: 11   22   11     E-mail Address:   jrusso@conchoresources.com   Conditions of Approval: 508 PAT FINAL   Attached □     Date:   05/05/2011   Phone:   432-212-2399   C-141 & Y 11   2.2   11   Attached □	regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and reme- or the environment. In addition, NMOCD acceptance of a C-141 report	se notifications and perform correct the NMOCD marked as "Final R diate contamination that pose a thr	ctive actions for releases which may endanger eport" does not relieve the operator of liability eat to ground water, surface water, human health
Printed Name:   Josh Russo   Approved by District Supervisor:   Serff Element     Title:   HSE Coordinator   Approval Date: 9   22   1   Expiration Date: 11   22   11     E-mail Address:   jrusso@conchoresources.com   Conditions of Approval: 508 Print FINAL   Attached □     Date:   05/05/2011   Phone:   432-212-2399   C-141 BY 11   2.2   11   IRP-09-11-2742		OIL CON	SERVATION DIVISION
Printed Name:   Josh Russo   Approved by District Supervisor:   Serff Element     Title:   HSE Coordinator   Approval Date: 9   22   1   Expiration Date: 11   22   11     E-mail Address:   jrusso@conchoresources.com   Conditions of Approval: 508 Print FINAL   Attached □     Date:   05/05/2011   Phone:   432-212-2399   C-141 BY 11   2.2   11   IRP-09-11-2742	Signature:	enter a National	
Title: HSE Coordinator Approval Date: 9   22   1   Expiration Date: 11   22   11   E-mail Address: jrusso@conchoresources.com Conditions of Approval: 508 PAT FINAL Attached   Date: 05/05/2011 Phone: 432-212-2399 C-141 BY 11   22   11		Approved by District Supervis	TorAL Labinc
E-mail Address:     jrusso@conchoresources.com     Conditions of Approval: SUBMIT FINAL     Attached       Date:     05/05/2011     Phone:     432-212-2399     C-141 BY 11/2-2-111.     IRP-09-11-2742	Title: HSE Coordinator	Approval Date: 9 22111	Expiration Date: 11/22/11
Date: 05/05/2011 Phone: 432-212-2399 C-141 BY 11/2-2/11. 1RP-09-11-2742	E-mail Address inisso@conchorecourses.com	Conditions of Approvali	
Date: $03/03/2011$ Phone: $432-212-2399$	ב-זומוי רועטובנג. וועגגענעטעורטובגעעורעייבגעאוו		
Attach Additional Sheets It Necessary		G141 64 11221	11. 11RP-09-11-2742
	Attach Additional Sheets It Necessary		

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### HOBBS OCD

### Leking, Geoffrey R, EMNRD

SEP 2 2 2011

From:	Tavarez, lke [lke.Tavarez@tetratech.com]	RECEIVED
Sent:	Thursday, September 22, 2011 3:27 PM	
То:	Leking, Geoffrey R, EMNRD	
Cc:	'Joshua Russo'; 'Pat Ellis'; Grubbs, Robert	
Subject:	COG - Hercules Federal Com #1 - Chaves County - Work F	Plan Approval Request
Attachments:	COG - Hercules Federal - Work Plan .pdf	

### Geoffrey,

Please find the enclosed Work Plan for the Hercules Federal Com #1 located in Chaves County, New Mexico. The work plan includes the soil assessment and recommendations for the remediation for the site. I will mail you a hard copy of the work plan for your files. Once approved, Tetra Tech will schedule the soil remediation and notify you prior to implementing the work plan. Please let me know if you need additional information or call me if you have any questions, thanks

#### Ike Tavarez, PG | Senior Project Manager

Main: 432.682.4559 | Fax 432 682 3946 | Cell: 432.425 3878

#### Ike.Tavarez@tetratech.com

Tetra Tech | Complex World. Clear Solutions™

1910 North Big Spring | Midland, TX 79705 | www.tetratech.com

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

		S	TE INFOR	MATION	· · ·	HORREMAN
	· · · · · ·	Rep	ort Type:	Work Pla	n	
General Site Info	ormation:		e al an			SEP-2 2 2011
Site:	at design and a second s		ederal Com #1			
Company:		COG Opera	ting LLC			978 813 mile 548 8 874 mile
Section, Townsh	nip and Range	Unit E	Sec 15	T15S	R31E	RECEIVED
Lease Number:		API-30-005-	27999			
County:		Chaves Cou	untý			· · · · · · · · · · · · · · · · · · ·
GPS:	,		33.01765° N			103.81779° W
Surface Owner:		Federal	•		· ·	
Mineral Owner:						
Directions:		From the inte	rsection of Hwy 8	82 and Co Rd 24	49 travel nor	th on Co Rd 249 for 11 miles, turn left
			on Co Rd 249 fo	r 0.9 miles, turn	right onto M	feldin Ranch Road and travel for 0.1.
	,,,,,,	miles to site.				
·	•				· ·	
	<u>.                                    </u>		•	·		
Rélease Data:						
Date Released:	·	5/2/2011	· · · · · ·	-	•	
Type Release:		Produced FI	uid .			
Source of Contan	nination:	Flowline	. •			
Fluid Released:	•	30 bbls				
Fluids Recovered	:	25 bbls				
Official Commun	nication:	and a second second second				
Name:	Pat Ellis			CONTRACTOR OF THE CONTRACT CONTRACT	Ike Tavare	7
		<u> </u>	1		<u> </u>	
Company:	COG Operating, LL		<u> </u>		Tetra Tech	· · · · · · · · · · · · · · · · · · ·
Address:	550 W. Texas Ave.	Ste. 1300	·		1910 N. Bi	g Spring
P.O. Box						· · · · · · · · · · · · · · · · · · ·
City:	Midland Texas, 797	701	·		Midland, To	exas
Phone number:	(432) 686-3023			· .	(432) 425-:	3878
Fax:	(432) 684-7137				,	
Email:	pellis@conchoreso	urces com		· · · · · · · · · · · · · · · · · · ·	ike tavare	z@tetratech.com
	Iponio o contricicio	arocoloom			INO. LO VUIC	2.8.16.114.16.011.100111
Ranking Criteria	and the second	N. 18 14.24.24				
indimining Official		and the forest states and the second states and	alatik i na sila sila di sebeli s			and the second
Depth to Groundw	ater:		Ranking Scor	e		Site Data
<50 ft			20			
50-99 ft			10		· · ·	
>100 ft.			0			0
	-	-				
WellHead Protection		• • •	Ranking Scor	e		Site Data
	00 ft., Private <200 f		20		<u> </u>	
Water Source >1,0	00 ft., Private >200 f	t	0		•	0
					· · · · · · · · · · · · · · · · · · ·	
Surface Body of W	/ater:		Ranking Scon			Site Data
<200 ft. 200 ft - 1,000 ft.	<u> </u>		20 10	·		
>1,000 ft.	····				·	0
21,000 h.						
	al Ranking Score:	R	1200 - PEA ON			a soll in 5 Ha martil Down
State Carter State ( NO	ai nanking Score.	STR. TUNK	0		. :	approved would concernance
		A DETEN		in the second		approved with conditions
•			ble Soil RRAL			MOCD-DIST 1
		Benzene	Total BTE			123111
•	•	10	50	5,000		
·		•				



September 12, 2011

Mr. Geoffrey Leking Environmental Engineer Oil Conservation Division, District 1 1625 North French Drive Hobbs, New Mexico 88240

### Re: Work Plan for the COG Operating LLC., Hercules Federal Com #1, Unit E, Section 15, Township 15 South, Range 31 East, Chaves County, New Mexico.

Mr. Leking:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Hercules Federal Com #1 located in Unit E, Section 15, Township 15 South, Range 31 East, Chaves County, New Mexico (Site). The spill site coordinates are N 33.01765°, W 103.81779°. The site location is shown on Figures 1 and 2.

### Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on May 1, 2011, and released approximately thirty (30) barrels of produced fluid from a flow line. Twenty Five (25) barrels of standing fluids were recovered. The spill initiated west of the pad affecting an area measuring 160' x (5' to 40' wide). In addition, there was also an area of light overspray measuring approximately 80' x 145'. The initial C-141 is enclosed in Appendix A.

### Groundwater

No water wells were listed within Section 15. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 200' below surface.



### Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

### Soil Assessment and Analytical Results

On May 24, 2011, Tetra Tech personnel inspected and sampled the spill area. Four (4) auger holes (AH-1 and AH-4) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix B. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all of the samples were below the TPH and BTEX RRAL, with the exception of AH-4. Auger hole (AH-4) showed a TPH of 9,585 mg/kg at 0-0.5' and not vertically defined, due to the dense formation. AH-1, AH-3 and AH-4 showed chloride concentrations of 1,600 mg/kg (0-0.5'), 2,120 mg/kg (0-1') and 1,670 mg/kg (0-0.5'), respectively. AH-1 did show a significant decline to <200 mg/kg at 1-1.5', but the remaining auger holes were not vertically defined.

### Work Plan

COG proposes to remove impacted material as highlighted (green) in Table 1. The areas of AH-1, AH-3 and AH-4 will be excavated to a depth of approximately 1.0' to 2.0' below surface. Once excavated, backhoe trenches will be installed in the areas of AH-3 and AH-4 to evaluate the excavation bottom and further define the chloride impact, if necessary. In addition, a confirmation sample for TPH will be collected from the area of AH-4. Once excavated to the appropriate depths, the excavations will be backfilled with clean soil.



Upon completion, a final report will be submitted to the NMOCD. If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,

TETRA TECH Ike Tavarez /PG

Project Manager

cc: Pat Ellis - COG

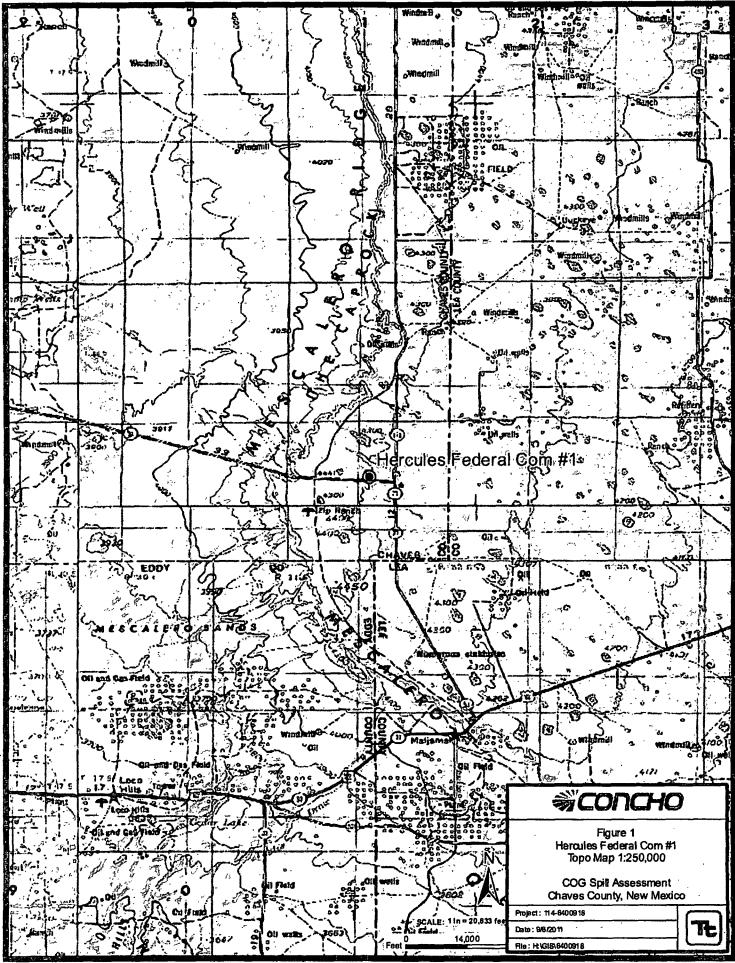
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## Figures

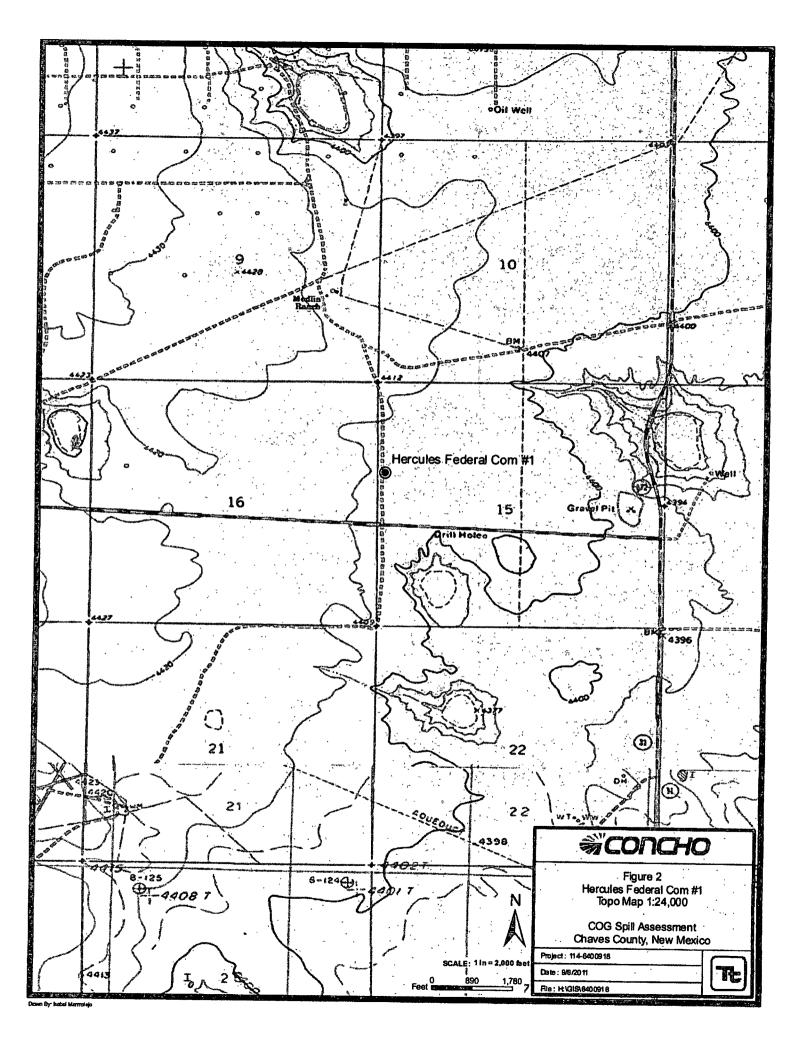
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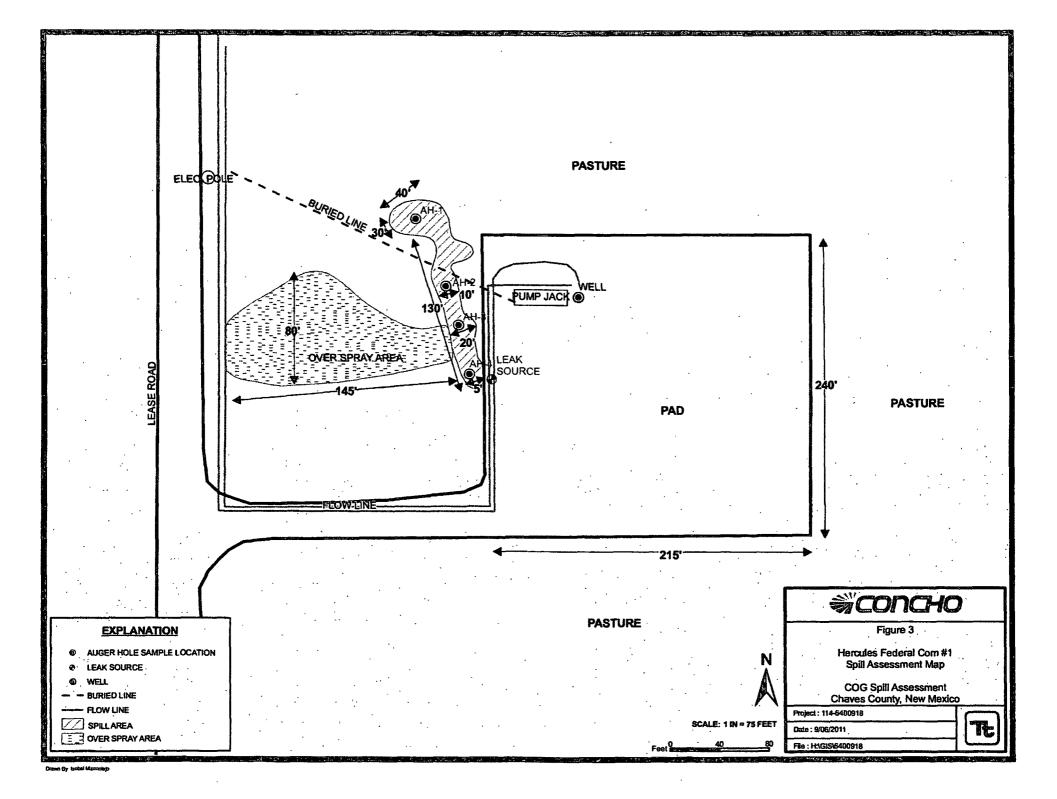
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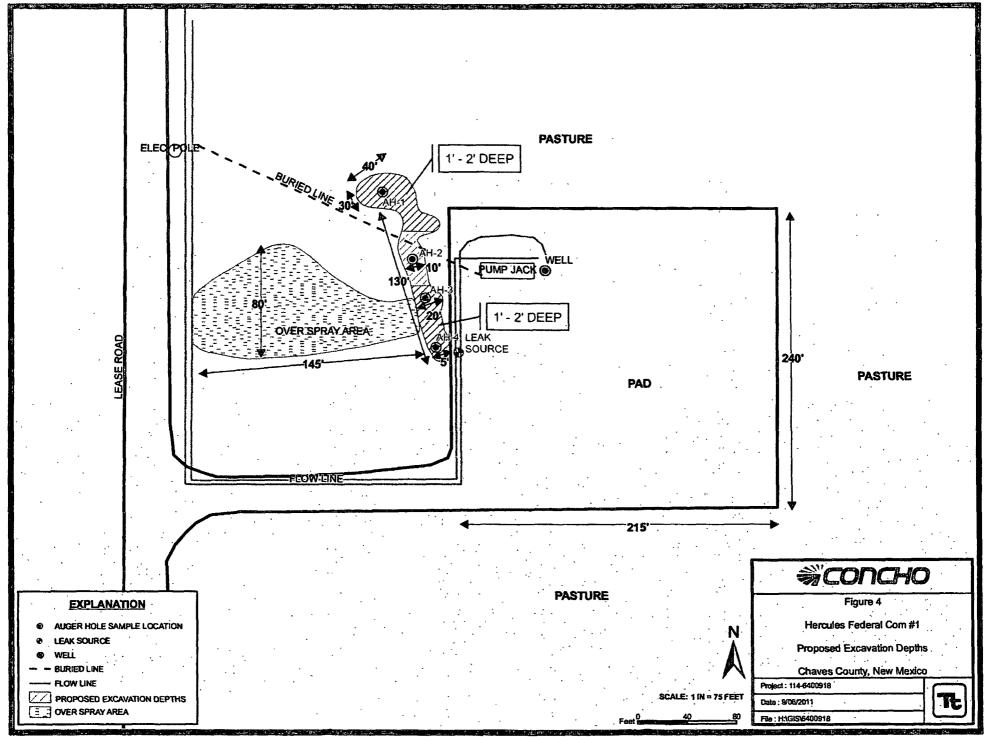
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Dawn By Sabel Mannel ejo







Occurs By: testes Marcanini

### Tables

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### Table 1 COG Operating LLC. HERCULES FEDERAL COM. #1 Chavez County, New Mexico

Sample	0	Sample	Soil	Status	Т	PH (mg/k	(g)	Benzene	Toluene	Ethlybenzene	Xylene	Total	Chloride
ID	Sample Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	BTEX	(mg/kg)
AH-1	5/24/2011	0-1'	X		474.	3,400	3,874	<0.200	<0.200	0.771	2.96	3.73	1,600
	U	1-1.5'	х		49.7	148	197.7	<0.0200	<0.0200	<0.0200	0.318	0.318	<200
AH-2	5/24/2011	0-1'	x		297	2,310	2,607	<0.100	<0.100	0.413	2.96	3.373	626
AH-3	5/24/2011	0-1'	x		<b>394</b> :	3,600	3,994	<0.100	0.602	0.619	6.53	7.15	2,120
AH-4	5/24/2011	0-0.5'	x	· .	775	8,810	9,585	1,04	13:2	19.5	16.8	36.30	1,670
(-)	Not Analyzed										انجار في من من من الي		

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Proposed Excavated Depths

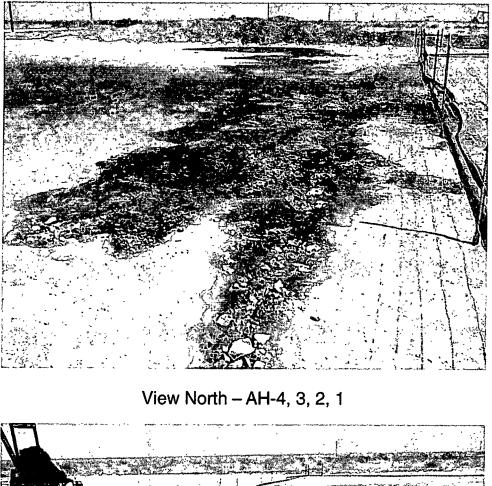
Photos

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COG Operating LLC Hercules Federal Com #1 Chaves County, New Mexico







View South – AH-1, 2, 3, 4

### Appendix A

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### State of New Mexico Energy Minerals and Natural Resources

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

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Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

### **Release Notification and Corrective Action**

Initial Report 🛛 Final Report	$\boxtimes$	<b>OPERATOR</b>		
	Pat Ellis	Contact	mpany COG OPERATING LLC	Name of Com
	432-230-0077	Telephone No.	550 W. Texas, Suite 100, Midland, TX 79701	Address
	Flowline	Facility Type	Hercules Federal Com #1	Facility Name
	Flowline	Facility Type	Hercules Federal Com #1	Facility Name

Surface Owner	Federal	Mineral Owner	Lease No. (API#) 30-005-27999

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	15	155	31E					Chaves

Latitude 33 01.018 Longitude 103 49.058

### NATURE OF RELEASE

Type of Release Produced fluid	Volume of Release 30bbls	Volume Re	ecovered 25bbls
Source of Release Flowline	Date and Hour of Occurrence 05/01/2011	Date and H 05:01/2011	lour of Discovery 8:00 a.m.
Was Immediate Notice Given?	If YES, To Whom?		
Yes 🗋 No 🗋 Not Required	Geoffr	ey Leking-O	CD
By Whom? Josh Russo	Date and Hour 05/02/2011	10:45 a.m.	
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	atercourse.	
🗌 Yes 🖄 No			
If a Watercourse was impacted, Describe Fully.*	<u> </u>		
Describe Cause of Problem and Remedial Action Taken.*			
Due to high pressure, the poly flowline ruptured at the Hercules Federal into service.	Com #1 location. The poly flowline h	uas been fused	back together and returned
Describe Area Affected and Cleanup Action Taken.*			
Initially 30bbls of produced fluid was released from the ruptured poly flo occurred to the west of the location on an area of the pad that has been do			
Standing fluid has been removed and any contaminated soil has been ac			
and the affected area has been sprayed with microblaze. Tetra Tech will			
and we will present a remediation work plan to the NMOCD / BLM for a			
I hereby certify that the information given above is true and complete to t			
regulations all operators are required to report and/or file certain release a public health or the environment. The acceptance of a C-141 report by the public health or the environment.			
should their operations have failed to adequately investigate and remedia			
or the environment. In addition, NMOCD acceptance of a C-141 report of			
federal, state, or local laws and/or regulations.	-	-	
	OIL CONSER	<u>VATION I</u>	DIVISION
Signature:			
Signature.			
Printed Name: Josh Russo	Approved by District Supervisor:		
Title: HSE Coordinator	Approval Date:	Expiration D	ate:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:		
e man realisa. ji nasongconenticasourcea.com	Constitutions of Apploval.		Attached
Date: 05/05/2011 Phone: 432-212-2399			

\* Attach Additional Sheets If Necessary

## Appendix B

Page Number: 1 of 2

### **Summary Report**

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX 79705

Report Date: June 14, 2011

Work Order: 11052704

Project Location:Chavez Co., NMProject Name:COG/Hercules Fed. Com. #1Project Number:114-6400918

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
267518	AH-1 0-1'	soil	2011-05-24	00:00	2011-05-26
267519	AH-1 1-1.5'	soil	2011-05-24	00:00	2011-05-26
267520	AH-2 0-1'	soil	2011-05-24	00:00	2011-05-26
267521	AH-3 0-1'	soil	2011-05-24	00:00	2011-05-26
267522	AH-4 0-0.5'	soil	2011-05-24	00:00	2011-05-26

T		Ì	BTEX	1	TPH DRO - NEW	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(ing/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
267518 - AH-1 0-1'	< 0.200	< 0.200	0.771	2.96	3400 q.	474
267519 - AH-1 1-1.5'	< 0.0200	<0.0200	<0.0200	0.318	148	49.7
267520 - AH-2 0-1'	< 0.100	<0.100	0.413	2.96	2310 q.	<b>`</b> 297
267521 - AH-3 0-1'	<0.100	0.602	0.619	6.53	3600 q.	394
267522 - AH-4 0-0.5'	1.04	13.2	19.5	16.8	8810 q.	775

### Sample: 267518 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		1600	mg/Kg	4

### Sample: 267519 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data.