



# Talon Resources, Inc.

February 7, 2008

Mr. Eric Jones  
Bureau of Land Management  
82 East Dogwood  
Moab, UT 84532

RE: Application for Permit to Drill – Chief Oil & Gas LLC  
**Chief Oil & Gas / International Petroleum #3-1**  
**786' FSL, 467' FWL, SW/4, SW/4 Section 3, T16S, R12E, SLB&M**  
**Emery County, Utah**

Request for suspension of Lease

Mr. Jones:

On behalf of Chief Oil & Gas LLC, Talon Resources, Inc. respectfully submits the enclosed original and two copies of the Application for Permit to Drill (APD) for the above referenced well.

On behalf of Chief Oil & Gas LLC, Talon Resources formally submits a request for Lease Suspension for Lease UTU-77092, located in Township 16 South and Range 12 East, SLB&M. Because of the NEPA process required on this lease, it is not possible to begin drilling by the termination date, March 31, 2008. Although a well location has been located and surveyed and an NOS has been submitted (January 18, 2008), and an on site review was performed (January 29, 2008), necessary time for completion of an arch survey and an Environmental Assessment before the termination date of the lease can not be concluded.

Should you have questions, please don't hesitate to contact me at 435-687-5310.

Sincerely

Allen P. Childs  
Talon Resources, Inc.

Cc: Ms. Louisa Becker  
Mr. Joel Ward  
Mr. Bryon Wixom  
Ms. Diana Mason  
File

Chief Oil & Gas LLC  
Chief Oil & Gas LLC  
International Petroleum  
DOGM, State Office

RECEIVED

FEB 08 2008

DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

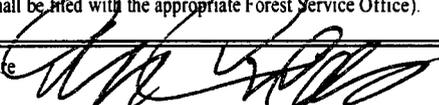
APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. <b>UTU-77092</b>	
6. If Indian, Allottee or Tribe Name <b>N/A</b>	
7. If Unit or CA Agreement, Name and No. <b>N/A</b>	
8. Lease Name and Well No. <b>Chief Oil &amp; Gas/Internation Petroleum 3-1</b>	
9. API Well No. <b>Pending 43-015-30743</b>	
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	10. Field and Pool, or Exploratory <b>Exploratory</b>
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone	11. Sec., T. R. M. or Blk. and Survey or Area <b>SW/SW, Sec. 3, T.16S, R.12E</b>
2. Name of Operator <b>Chief Oil &amp; Gas LLC</b>	12. County or Parish <b>Emery</b>
3a. Address <b>5956 Sherry Lane, Suite 1500 Dallas, TX 75225</b>	13. State <b>UT</b>
3b. Phone No. (include area code) <b>274-265-9590</b>	14. Distance in miles and direction from nearest town or post office* <b>11 Miles south and east of Wellington, Utah</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface <b>786' FSL, 467' FWL 537423X 39.457414</b> At proposed prod. zone <b>786' FSL, 467' FWL 43674204 -110.565024</b>	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>467'</b>
16. No. of acres in lease <b>640 acres</b>	17. Spacing Unit dedicated to this well <b>NA</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>2100' (Hole P&amp;A)</b>	19. Proposed Depth <b>7,287' TD</b>
20. BLM/BIA Bond No. on file <b>B004198</b>	21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>5376.1' GR</b>
22. Approximate date work will start* <b>03/15/2008</b>	23. Estimated duration <b>4 Weeks</b>

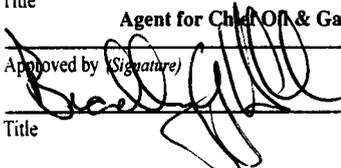
24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature 	Name (Printed/Typed) <b>Allen P. Childs</b>	Date <b>2/7/08</b>
---	--	-----------------------

Title **Agent for Chief Oil & Gas LLC**

Approved by (Signature) 	Name (Printed/Typed) <b>BRADLEY G. HILL</b>	Date <b>02-25-08</b>
---	--	-------------------------

Title **ENVIRONMENTAL MANAGER**

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

**Federal Approval of this  
Action is Necessary**

**RECEIVED**

**FEB 08 2008**

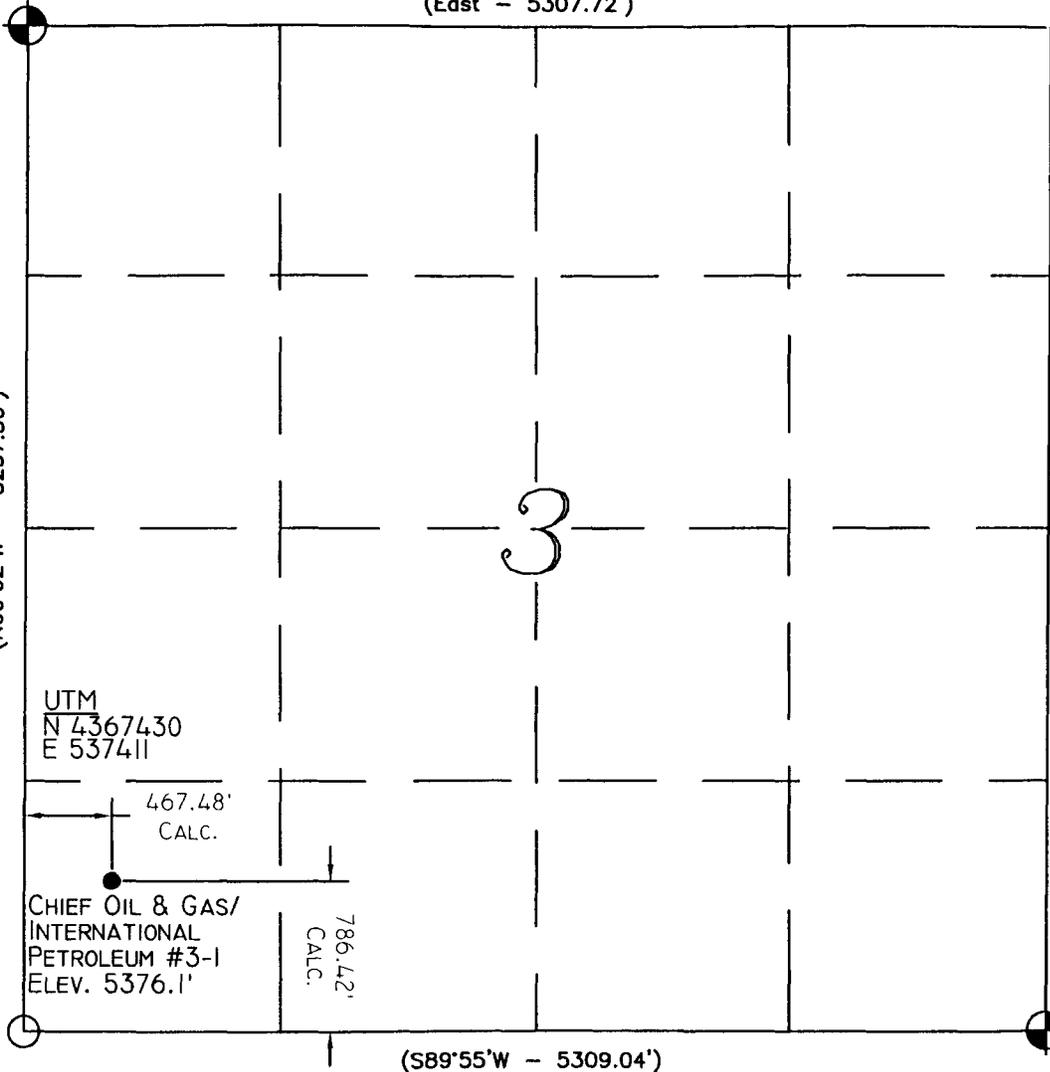
**DIV. OF OIL, GAS & MINING**

# Range 12 East

(East - 5307.72')

Township 16 South

(N00°02'W - 5257.56')



UTM  
N 4367430  
E 537411

467.48'  
CALC.

CHIEF OIL & GAS/  
INTERNATIONAL  
PETROLEUM #3-1  
ELEV. 5376.1'

786.42'  
CALC.

(S89°55'W - 5309.04')

## Legend

- Drill Hole Location
- ⊙ Brass Cap (Found)
- Brass Cap (Searched for, but not found)
- △ Rock Pile
- ( ) GLO
- GPS Measured

## NOTES:

1. UTM and Latitude / Longitude Coordinates are derived using a GPS Pathfinder and are shown in NAD 27 Datum.

LAT / LONG
39°27'26.735" N
111°33'54.281" W

## Location:

The well location was determined using a Trimble 5700 GPS survey grade unit.

## Basis of Bearing:

The Basis of Bearing is GPS Measured.

## GLO Bearing:

The Bearings indicated are per the recorded plat obtained from the U.S. Land Office.

## Basis of Elevation:

Basis of Elevation of 5360.0' being at the Southeast Section corner of Section 3, Township 16 South, Range 12 East, Salt Lake Base & Meridian, as shown on the Mounds Quadrangle 7.5 Minute Series Map.

## Description of Location:

Proposed Drill Hole located in the SW/4 SW/4 of Section 3 T16S, R12E, S.L.B.&M., being North 786.42' from South line and East 467.48' from West line of Section 3, T16S, R12E, Salt Lake Base & Meridian.

## Surveyor's Certificate:

I, Albert J. Spensko, a Registered Professional Land Surveyor, holding Certificate 146652 State of Utah, do hereby certify that the information on this drawing is a true and accurate survey based on data of record and was conducted under my personal direction and supervision as shown hereon.



## GRAPHIC SCALE

0 500' 1000'  
 ( IN FEET )  
 1 inch = 1000 ft.



## TALON RESOURCES, INC.

615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-531  
 E-Mail talon@trv.net



Chief Oil & Gas/  
 International Petroleum #3-1  
 Section 3, T16S, R12E, S.L.B.&M.  
 Emery County, Utah

Drawn By: N. BUTKOVICH	Checked By: L.W.J./A.J.S.
Drawing No. A-1	Date: 12/13/07
	Scale: 1" = 1000'
Sheet 1 of 4	Job No. 3279

**Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

Bureau of Land Management

Moab District

Application for Permit to Drill

Drilling and Surface Use Plan

Company Chief Oil & Gas LLC

Well No. Chief Oil & Gas/International Petroleum #3-1

Location: SW/SW Sect 3, T16S, R12E, SLB&M Lease No. UTU-77092

On-Site Inspection Date: January 29, 2008

Representative: Allen P. Childs, Talon Resources, Inc.

**TIGHT HOLE STATUS**

**Chief Oil & Gas / International Petroleum Federal 3-1**

SWSW Sec 3, T16S, R12E

786 FSL, 467 FWL

Grd level = 5376'

**2 - Lease Type**

Federal Lease – UTU-77092

**3 - Location Plat**

Attached

**4 - Water Rights**

**Water used for drilling and completion operations will be purchased from the Carbon County Water Improvement District water haul station at Ridge Road and State Hwy. #10 for this project.**

**Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

**5 - Estimated Formation Tops**

Surface formation: Morrison Formation

	<u>MD</u>	<u>Subsea</u>
Tununk	0'	+5,388 (KB)
Dakota	30'	+5,358
Cedar Mountain	72'	+5,316
Buckhorn	315'	+5,073
Morrison	385'	+5,003
Salt Wash	769'	+4,619
Summerville	919'	+4,469
Curtis	1,139'	+4,249
Entrada	1,266'	+4,122
Carmel	1,536'	+3,852
Navajo	1,926'	+3,462
Kayenta	2,286'	+3,102
Wingate	2,346'	+3,042
Chinle	2,803'	+2,585
Shinarump	2,998'	+2,390
Moenkopi	3,046'	+2,342
Marine Moenkopi	3,881'	+1,507
Coconino	4,114'	+1,274
Pennsylvanian	4,957'	+ 431
Mississippian Manning Cyn	6,280'	- 900
Manning Canyon Shale	6,802'	- 1,402
Humberg Limestone	7,087'	- 1,699
TD	7,287'	-1,899

**6 - Estimated Depth at Which Oil, Gas, Water or Other Mineral Bearing Zones are Expected to be Encountered**

<u>Formation</u>	<u>Depth</u>	
Navajo	1,926'-2,286'	Oil/Water
Chinle	2,803'-2,998'	Water
Manning Canyon	6,280'-7,087'	Gas
Humberg	7,087'-7,287'	Water
Expected Mineral Zones:	None	

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and will be cased and cemented. When possible, water flow rates will be measured and samples will be taken and analyzed. All oil and gas shows will be tested to determine commercial potential.



## **Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

each casing point to the maximum anticipated mud weight equivalent expected at the next casing point.

All BOP equipment will be rated at 5,000 psi working pressure – except for the annular which will be rated to 250 psi. Pressure control equipment shall consist of but not be limited to the following:

- Rotating Head
- Spherical type annular preventer
- 2 Hydraulic pipe rams
- 1 Hydraulic blind ram
- Drilling spool with two side outlets
- 3” or 4” diameter choke line
- HCR choke line valve
- Manual choke line valve
- Two kill line valves and check valve
- Choke manifold consisting of three chokes (at least one manual choke and one remote controlled choke) with full opening block valves for component isolation.
- Upper Kelly cock valve
- Lower Kelly cock valve
- Safety valve and subs to fit all drill string connections in use
- Appropriately sized accumulator for BOP system
- Remote control panel for hydraulic choke located on the rig floor
- Inside BOP or Float Sub
- Wear Bushing.

All pressure control equipment will be installed, tested and operated in compliance with 43 CFR Part 3160 of the Federal Register.

All casing strings below the conductor shall be pressure tested to 0.22 psi/ft or 1500 psi, whichever is greater, not to exceed 70% of the internal yield of the casing.

Pit volumes will be visually monitored. A flow indicator with a floor monitor panel will be utilized.

A rotating head and gas buster will be utilized to drill with air/mist/foam and lower mud weights to minimize costs and formation damage.

## **Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

An electrical/mechanical mud monitoring equipment will be used, which shall include as a minimum: pit volume totalizer (PVT), stroke counter, and flow sensor.

The Bureau of Land Management shall be notified 24 hours in advance of all BOP pressure tests, and casing and cementing operations.

Included is a schematic diagram of the blowout preventer equipment. An 13-5/8" 5,000 psi Double gate Hydraulic BOP with one (1) blind ram and two (2) pipe rams and Annular Preventer; equipped with a 5,000 psi manual choke manifold. The BOP will be tested and charted using a BOP tester and test plug to 5,000 psi for 10 minutes. The Annular Preventer will be tested to 1,500 psi for 10 minutes. All tests will be recorded in the Driller's log book. Pipe rams will be function tested daily, and blind rams tested on each trip.

BOP systems will be consistent with API RP 53 and Onshore Oil and Gas Order No. 2. Pressure tests of the surface casing and all BOP equipment potentially subject to pressure will be conducted before drilling the surface casing shoe. Blowout preventer controls will be installed prior to drilling the surface casing shoe and will remain in use until the well is completed or abandoned. Ram preventers shall be inspected and operated each trip (no more than once a day is necessary), and annular preventers shall be inspected and operated weekly to ensure good mechanical working order. These inspections shall be recorded in the drilling log and in the daily drilling report.

### **8 - Circulating Medium**

A non-dispersed, low solids  $\pm 9.0$  ppg mud will be used initially in the well. The weight will be gradually increased to an estimated 11.5 ppg at TD. The well will be tested daily to test for flow. Adequate weight material will be on location to be able to contain any unforeseen formation pressures during the drilling operations. Viscosity will be maintained at 45 - 50 for logging.

Gel/soda ash (no caustic) mud spiked with Drispac-R to help w/ the vis, use only about 7-10 #/BBL gel and use the Pac to get it up to a 32-34 funnel vis, It all depends on the rig and what kind of pumps they have. You need at least 160-180 past the pipe (AV) to keep your vis this low. and this should keep the WL around 10-12 which

Estimated Mud Program

SPUD MUD

15-20 # per bbl. gel

2 sacks caustic

1-2 sacks DESCO

TIGHT HOLE STATUS

## **Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

### **MATERIALS:**

75-100 sacks gel

2 sacks caustic

1-2 sacks DESCO

Sulfonated Asphalt 2-3#/ bbl – daily treatment 10-15 sx/day

8# per barrel CACL 2.5%

Use 8.4# per barrel gel

½ # per barrel DRISPAC

Sulfonated asphalt per company directive

Approximately 150 sacks starch or 75 sacks Kleen Phase for a 40 viscosity if required

Basic materials needed for 1000 bbls of mud

80-100# sacks CACL

10 sacks Drispac-R

Treatment for logging

Approximately 150 sacks starch or 75 sacks Kleen Phase for a 40 viscosity

## **9 - Well Testing & Cores**

No cores are planned for this well.

### **DST**

No DSTs are planned for this well.

### **Mud Logging**

An on-site geologist will be on location from surface to total depth. Take samples every 30 feet while air drilling and 15' while drilling with fluid. Hydrocarbon monitoring and detection equipment will be utilized during drilling operations.

### **Logging Program**

The well will be logged from TD to surface casing with the Platform Express at this time.

The logging program could consist of a resistivity log, gamma ray log, Compensated Neutron Log, sonic log and dipmeter. Actual logging program will be determined from the data derived during drilling operations.

## **Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

### **10 - Anticipated Pressures & Potential hazardous conditions**

Anticipated formation pressures will be under hydrostatic gradient. Expected bottom hole pressure is estimated to be less than 4800 psi.

No abnormal pressures or temperatures are anticipated.

No hydrogen sulfide gas is anticipated.

Adequate weight material will be on location to be able to contain any unforeseen formation pressures during the drilling operations.

### **11- Casing Program**

Run guide shoe and fill-up collar one joint above bottom. Install centralizers on every other joint of casing. Add centralizer across all productive zones. Utilize a DV 2 stage tool. to cover

Surface pipe – 8 5/8”, 24 #/ft, K55 - LTC 0’ to 500’

Production – 5 1/2”, 17 #/ft, N80 - LTC – 0’ to TD

### **12 - Cementing**

An estimated 300 cu. ft = Lead= 330 sx, Type III cement w/ .2% Versaset, .125 #/sx poly flake, 2% CaCl. 14.5 ppg will be used to cement the casing.

Production string will be cemented from TD and use a 2 stage tool estimated to be set @ ± 3000’

*From TD to 5500 ft – Actual volumes to be determined from logs.*

1st stage= 250 cf, 45 bbls, 350 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/ sx gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx

Tail = 500 cf, 90 bbls, 350 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/ sx gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx

*From DV tool (±3000’) to estimated 1500 ft. TOC - Actual volumes to be determined from logs.*

## **Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

1st stage= 250 cf, 45 bbls, 350 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/sx gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx

Tail = 500 cf, 90 bbls, 350 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/sx gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx

All potential producing zones will be covered with cement.

### **Drilling Program**

1. Move in. Rig up
2. Drill 12 1/2" hole to 500 ft. using native solids. Take directional survey at 250' and at 500'.
3. Run surface pipe to TD. Cement casing in hole from TD to surface. Estimate 300 cubic feet of cement required.
4. Wait 12 hours on cement. Install casing head.
5. Rig up BOPE equipment. Test BOPs to 5000 psi. Test casing to 1500 psi.
6. Drill out cement with 7 7/8" bit. Mud up with low solids dispersed mud. Rig up mud logging equipment at 500'. Samples will be taken every 30' from surface casing to top of Navajo while drilling.
7. Drill 7 7/8" hole from 500' to ±7900'. Take deviation survey every 250'. Samples will be taken every 15' from 1100' to total depth. Drill hole to match casing length.
8. Circulate hole at TD and prepare mud for logging.
9. Run Resistivity log, Gamma Ray, Neutron Log, Sonic and Dip meter logs from total depth to surface casing. Possibility of running platform express.
10. Run 5 1/2", 17 lb/ft production casing to TD. It is anticipated that a 2 stage tool will be used set at an estimated 3000'. Cement casing from TD following cementing program list above.
11. Land casing. Set 5000 lbs on casing head.
12. Rig down. Move rig off location.

**Chief Oil & Gas / International Petroleum #3-1**

SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092

**13** – Well will be drilled as a straight hole

**Deviation**

Take deviation survey every  $\pm 250'$ .

**14** – **Designation of Agent**

Talon Resources, Inc

P.O. Box 1230

615 North 400 East

Huntington, UT 84528

Allen P. Childs - 435-687-5310

**15** - **Bond**

**State Wide Bond #B004198**

**16- Affidavit of Surface agreement**

Federal lease – surface use agreement attached.

**17 - Exception Location**

No request for an exception location. is requested. A

Location layout – Not rig specific - Proposed

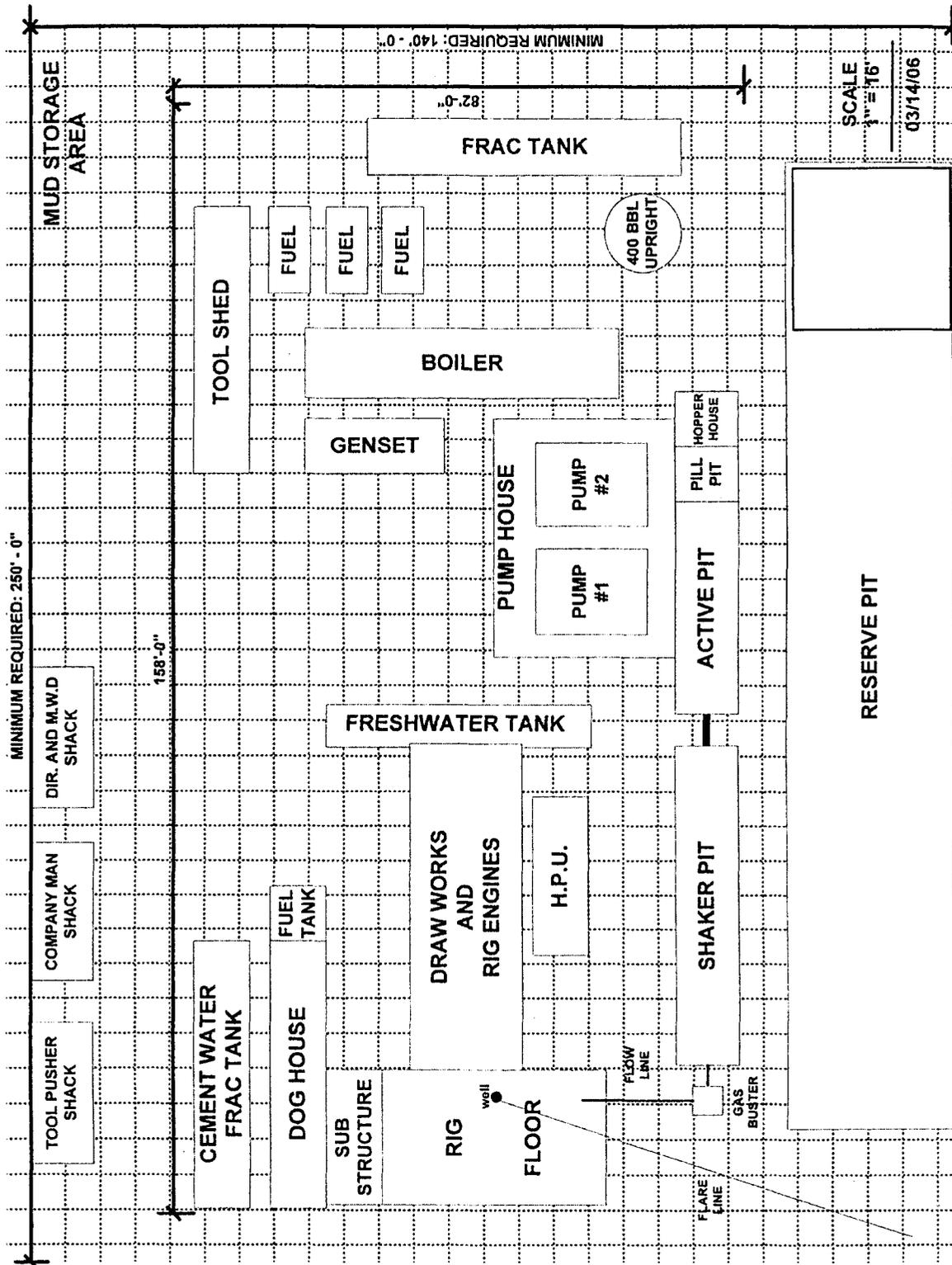
**Chief Oil & Gas / International Petroleum #3-1**

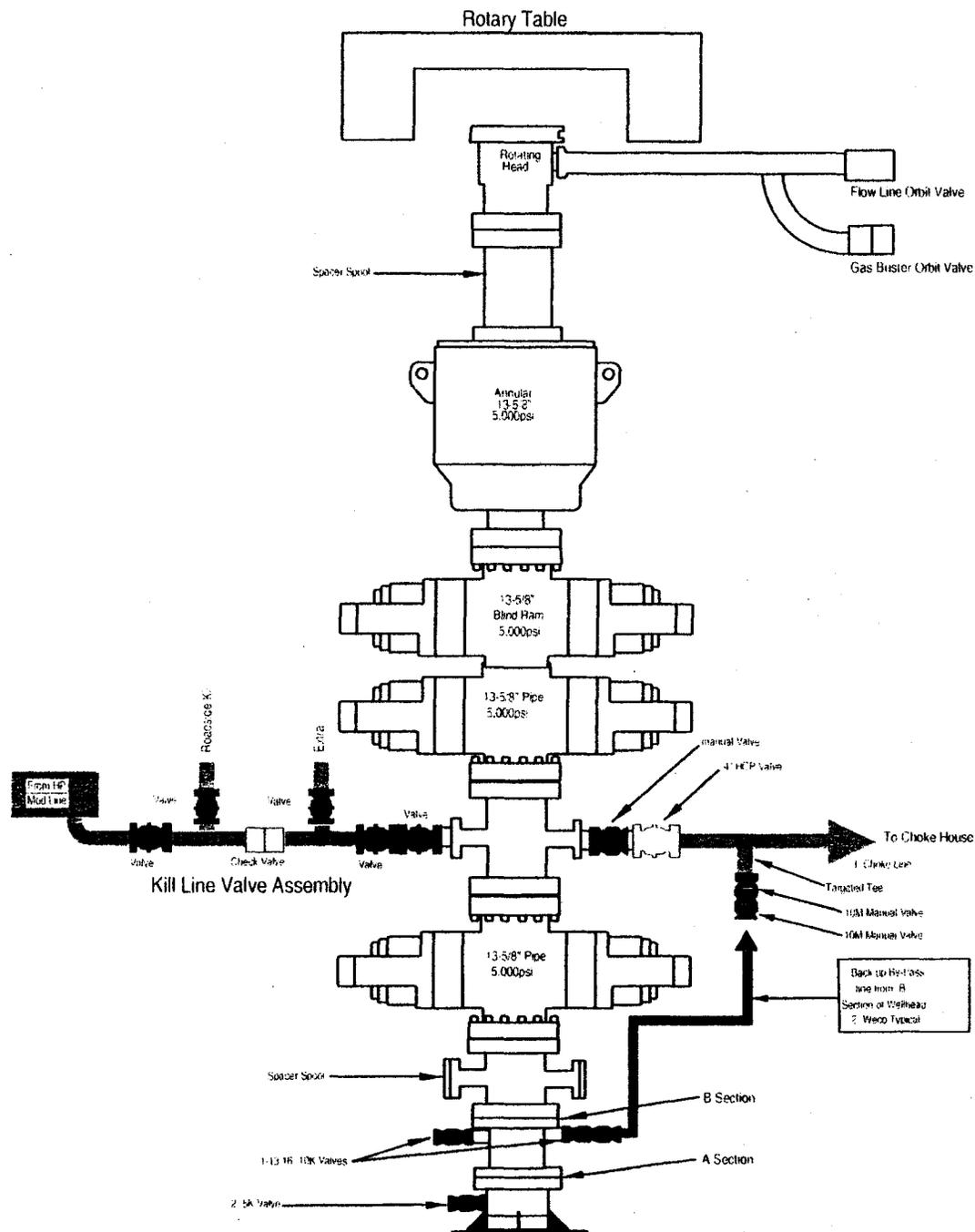
SWWW Sec 3, T16S, R12E

786 FSL, 467 FWL

Ground Elevation = 5376'

UTU-77092







**TALON RESOURCES, INC.**  
 615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5310  
 E-Mail [info@talonrv.com](mailto:info@talonrv.com)

---



**CHIEF**  
 OIL & GAS LLC

**5,000PSI BOP**

Drawn By: <b>L. JOHNSON</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>A-1</b>	Date: <b>1/29/08</b>
of 4	Scale: <b>N.T.S.</b>
Job No. <b>3279</b>	Job No. <b>3279</b>

Bureau of Land Management  
Moab District  
Application for Permit to Drill  
Drilling and Surface Use Plan

Company Chief Oil & Gas LLC  
Well No. Chief Oil & Gas/International Petroleum #3-1  
Location: SW/SW Sect 3, T16S, R12E, SLB&M Lease No. UTU-77092  
On-Site Inspection Date: January 29, 2008  
Representative: Allen P. Childs, Talon Resources, Inc.

**TIGHT HOLE STATUS**

**SURFACE USE PLAN**

The dirt contractor will be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:
  - a. Proposed route to location (Refer to Drawing L-1).
  - b. Location of proposed well in relation to town or other reference point: 11 miles south and east from Wellington, Utah.
  - c. Contact the County Road Department for use of county roads. The use of County roads will require an encroachment permit from the Emery County Road Department.
  - d. Plans for improvement and/or maintenance of existing roads: Upgrade and maintain existing state or county roads.
  - e. Other:
2. Planned Access Roads:
  - a. Location (centerline): Refer to Drawing L-1, The centerline will be flagged
  - b. Length of new access to be constructed: 400 ' which will intercept the County Road 115.
  - c. Length of existing roads to be upgraded: (see Drawing L1).
  - d. Maximum total disturbed width: 30'
  - e. Maximum travel surface width: 18-24'
  - f. Maximum grades: 10%
  - g. Turnouts: none

- h. Surface materials: None for Drilling, if the well is a producer, gravel will be added as needed
- i. Drainage (crowning, ditching, culverts, etc):  
New road construction: Roads will be crowned with water ditches on both sides. Crossing drainages will be low water crossings, unless otherwise specified, making sure the existing drainage surface elevation remains the same after construction. Any excess material will be stock piled on either side of the road, outside of the drainage. 1-18" culvert will be needed (see drawing L-1 for locations)
- j. Cattleguards: none
- k. Length of new and/or existing roads which lie outside the lease boundary for which a BLM right-of-way is required: None
- l. Other:

Surface disturbance and vehicular travel will be limited to the approved location access road. Any additional area needed must be approved by the Area Manager in advance.

If a right-of-way is necessary, no surface disturbing activities shall take place on the subject right-of-way until the associated APD is approved. The holder will adhere to conditions of approval in the Surface Use Program of the approved APD, relevant to any right-of-way facilities.

If a right-of-way is secured, boundary adjustments in the lease or unit shall automatically amend this right-of-way to include that portion of the facility no longer contained within the lease or unit. In the event of an automatic amendment to this right-of-way grant, the prior on-lease/unit conditions of approval of this facility will not be affected even though they would now apply to facilities outside of the lease/unit as a result of a boundary adjustment. Rental fees, if appropriate shall be recalculated based on the conditions of this grant and the regulations in effect at the time of an automatic amendment.

If the well is productive, the access road will be rehabilitated or brought to Resource (Class III) Road Standards within 60 days of dismantling the rig. If upgraded, the access road must be maintained at these standards until the well is properly abandoned. If this time frame cannot be met, the Area Manager will be notified so that temporary drainage control can be installed along the access road.

- 3. Location of Existing Wells-on a map, show the location of all water, injection, disposal, producing and drilling wells within a one mile radius of the proposed well, and describe the status of each: See Drawing "L-1".
- 4. Location of Production Facilities:
  - a. On-site facilities: If the well is a producer, installation of production facilities will follow.
  - b. Off-site facilities: none
  - c. Pipelines: Unknown

All permanent (in place for six months or longer) structures constructed or installed (including oil well pump jacks) will be painted a flat, non-reflective color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities that are required to comply with the Occupational Safety and Health Act (OSHA) may be excluded. Colors will be as follows: Color will match the surrounding soils and vegetation.

If a gas meter run is constructed, it will be located on lease within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.

If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1 ½ times the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All oil production and measurement shall conform to the provisions of 43 CFR § 3162.7-3 and Onshore Oil and Gas Order No. 4

Production facilities on location may include a lined or unlined produced water pit as specified in NTL-2B. If water is produced from the well, an NTL-2B application must be submitted.

5. Location and Type of Water Supply:

All water needed for drilling purposes will be obtained from (describe location and/or show on a map):

Municipal water will be used from the Carbon County water haul station located at Ridge Road and Highway 10, 5 miles south of Price, UT.

If necessary, a temporary water use permit for this operation will be obtained from the Utah State Engineer in Price, Utah at (435) 637-1303.

Water obtained on private land, or land administered by another agency, will require approval from the owner or agency for use of the land.

6. Source of Construction Material:

Pad construction material will be obtained from (if the source is Federally owned, show location on a map): NA

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

7. Methods of Handling Waste Disposal:

Describe the methods and locations proposed for safe containment and disposal of waste material, e.g. cuttings, produced water, garbage, sewage, chemicals, etc.

The reserve pit will be lined with (native material, bentonite, synthetic material): Pit will be lined with a synthetic liner 12 mil thick or greater.

The reserve pit will be located at the: South side of the location, as depicted on drawing A-2, and the pit walls will be sloped at no greater than 2 to 1.

The reserve pit shall be located in cut material, with at least 50% of the pit volume being below original ground level. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced as soon as drilling is completed, and shall remain until the pit is dry. As soon as the reserve pit has dried, all areas not needed for production will be rehabilitated.

Trash must be contained in a trash cage and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations.

8. Ancillary Facilities: Temporary trailers, Garbage containers and portable toilets.
9. Well Site Layout - depict the pit, rig, cut and fill, topsoil, etc. on a plat with a scale of at least 1" = 50'.

All well, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.6.

Access to the well pad will be from: North and west of location.

The blooie line will be located in the: Northwest, at least 100 feet from the wellhead.

To minimize the amount of fugitive dust and spray escaping from the blooie pit, the following blooie line deflection method will be employed: Water injection.

10. Plans for Restoration of the Surface:

The top ½ foot of topsoil material will be removed from the location and stockpiled Parallel to the well pad.

Topsoil along the access road will be reserved in place, adjacent to the road.

Immediately upon completion of drilling, all equipment that is not necessary for production shall be removed.

The reserve pit and that portion of the location not needed for production will be reclaimed.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry.

Reclaimed roads will have the berms and cuts reduced and will be closed to vehicle use.

All disturbed areas will be recontoured to replicate the natural slope.

The stockpiled topsoil will be evenly distributed over the disturbed area.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

Seed will be broadcast or drilled between October 1. and December 15 or at a time specified by the BLM. If broadcast, a harrow or some other implement will be dragged over the seeded area to cover the seed.

Seed mixtures will be used:

The seed mixture to be a Salt Desert seed mix, provided by the Bureau of Land management.

The abandonment marker will be one of the following, as specified by BLM:

- 1) At least four feet above ground level,
- 2) At restored ground level, or
- 3) Below ground level.

In any case the marker shall be inscribed with the following: operator name, lease number, well name and surveyed description (township, range, section and either quarter-quarter or footages).

Additional requirements:

11. Surface and Mineral Ownership: BLM Surface/BLM Subsurface

12. Other Information:

a. Archeological Concerns:

An archeological survey will be conducted at the earliest opportunity, and those reports will be submitted to the BLM and SHIPO

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized officer (AO). Within five (5) working days, the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- A time frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume

responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

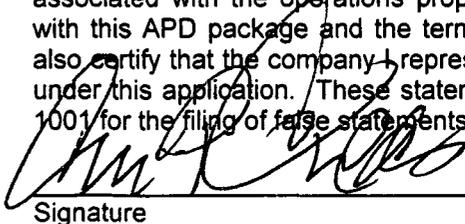
- b. Threatened and Endangered Species Concerns: No
- c. Wildlife Seasonal Restrictions (yes/no): Yes (Antelope Fawning)
- d. Off Location Geophysical Testing: N/A
- e. Drainage crossings that require additional State or Federal approval: N/A
- f. Other: N/A

13. Lessee's or Operator's Representative and Certification

<b>Operator</b>	<b>Chief Oil &amp; Gas LLC</b>
Name:	Louisa Becker
Title:	Manger of Land
Address:	5956 Sherry Lane, Suite 1500 Dallas, TX 75225
Phone No:	274-265-9590
<b>Representative:</b>	<b>Permit Consultant:</b>
Name:	Allen P. Childs
Title:	Talon Resources, Inc
Address:	P.O. Box 1230 615 North 400 East Huntington, UT 84528
Phone No:	1-435-687-5310

Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exists; that the company or operator I represent has full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by in conformity with this APD package and the terms and conditions under which it is approved. I also certify that the company I represent, is responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

  
Signature

Allen P. Childs

Agent  
Title

2/7/08  
Date

### C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the Resource Area, Natural Resource Protection Specialist at least 24 hours prior to commencing construction of location.

Spud- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval from the Assistant District Manager. "Sundry Notices and Reports on Wells: (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Authorized Officer. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

First Production- Should the well be successfully completed for production, the Assistant District Manager, Minerals Division will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Resource Area Office. The Resource Area Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Re-completion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs, core descriptions, core analysis, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, work-over, and/or completion operations, will be filed with Form 3160-4. Samples

(cuttings and/or samples) will be submitted when requested by the Assistant District Manager.

Venting/Flaring of Gas-NTL-4A allows venting/flaring of gas during the initial well evaluation period not to exceed 30 days or 50 MMcf. Venting/flaring beyond the initial test period threshold must be approved by the District Office.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Assistant District Manager for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the BLM, Moab District Office prior to initiating plugging operations. Table 1 of this document provides the after-hours phone numbers of personnel who are authorized to give plugging instructions.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the Assistant District Manager, Minerals Divisions within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

#### TABLE 1 NOTIFICATIONS

Notify Don Stephens of the Price, UT District Office, at 435-636-3600 for the following:

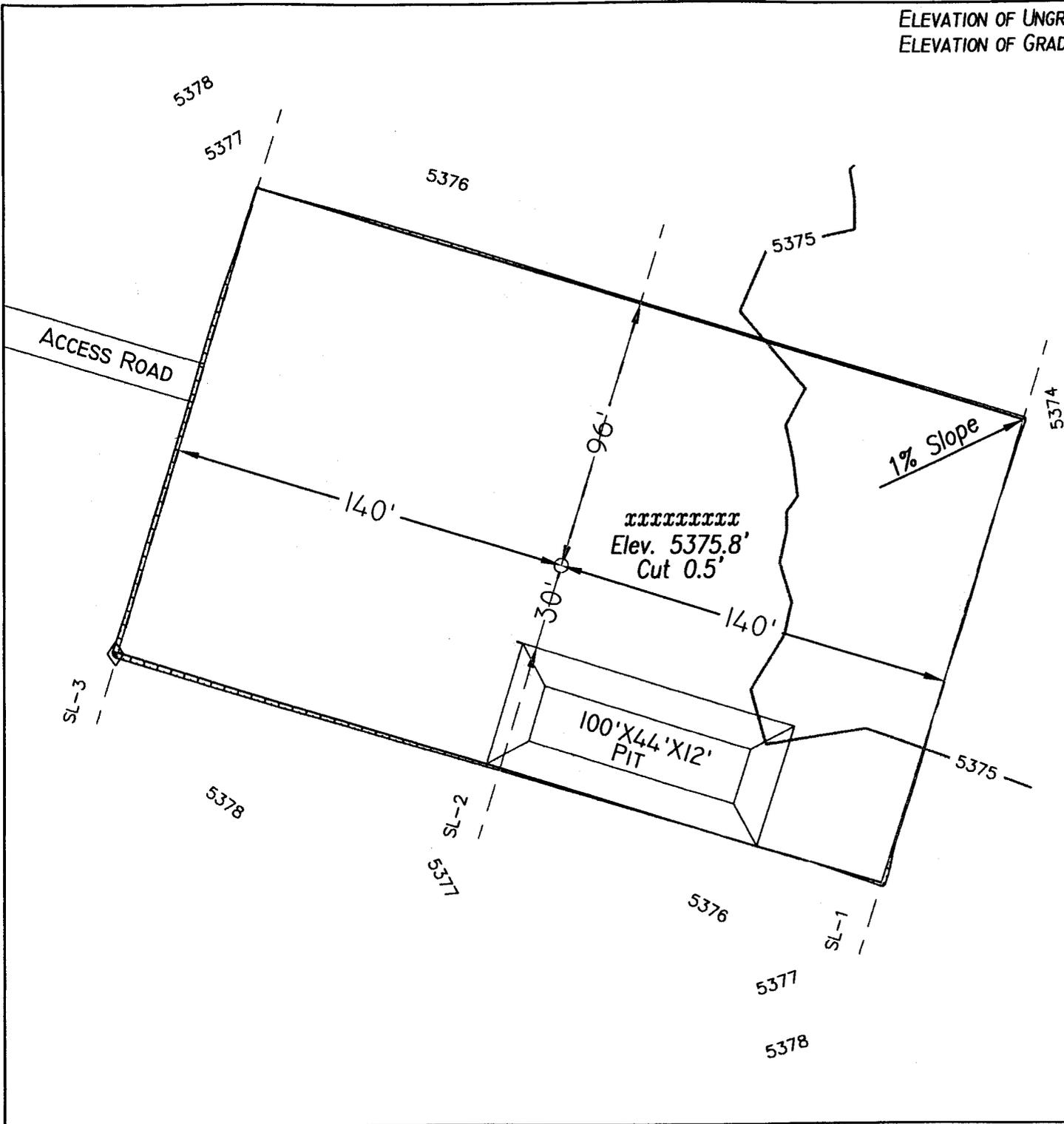
- 2 days prior to commencement of dirt work, construction or reclamation;
- 1 day prior to spudding;
- 50 feet prior to reaching surface and intermediate casing depths;
- 3 hours prior to testing BOP;
- 12 hours prior to reaching kickoff point depth (if applicable).

If the person at the above number cannot be reached, notify the Moab District Office at (435) 259-6111. If unsuccessful, notify one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (435) 259-6111. If approval is needed after work hours, you may contact the following:

Eric Jones, Petroleum Engineer Office: (435) 259-6111  
Home: (435) 259-2214

ELEVATION OF UNGRADED GROUND AT LOCATION STAKE = 5375.8'  
 ELEVATION OF GRADED GROUND AT LOCATION STAKE = 5375.3'

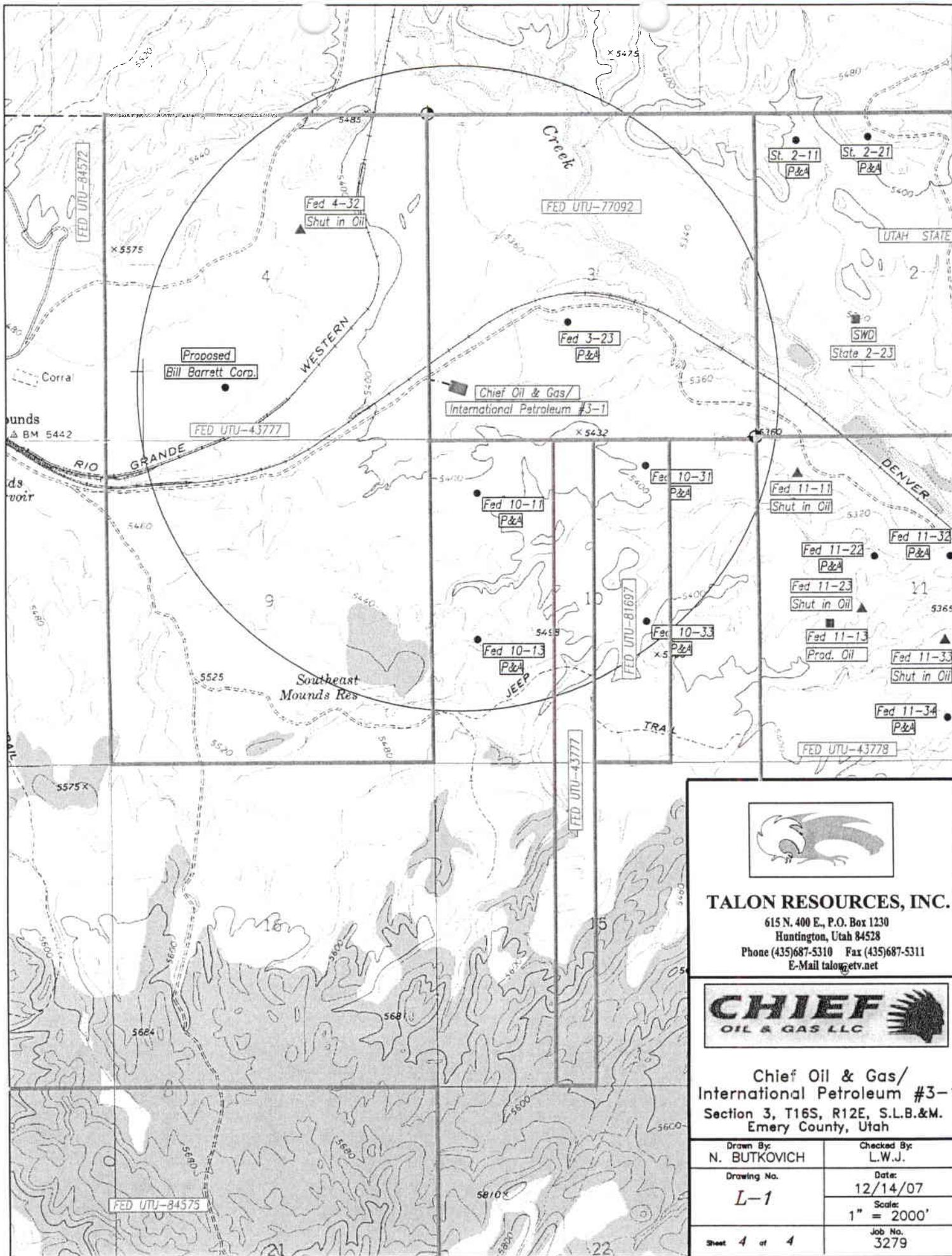


**TALON RESOURCES, INC.**

615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talonactv.net

**LOCATION LAYOUT**  
 Section 3, T16S, R12E, S.L.B.&M.  
 XXXXXXXXXXXXXXXXXXXXXXXX

Drawn By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>A-2</b>	Date: <b>12/13/07</b>
	Scale: <b>1" = 50'</b>
Sheet <b>2 of 4</b>	Job No. <b>XXXX</b>



**TALON RESOURCES, INC.**

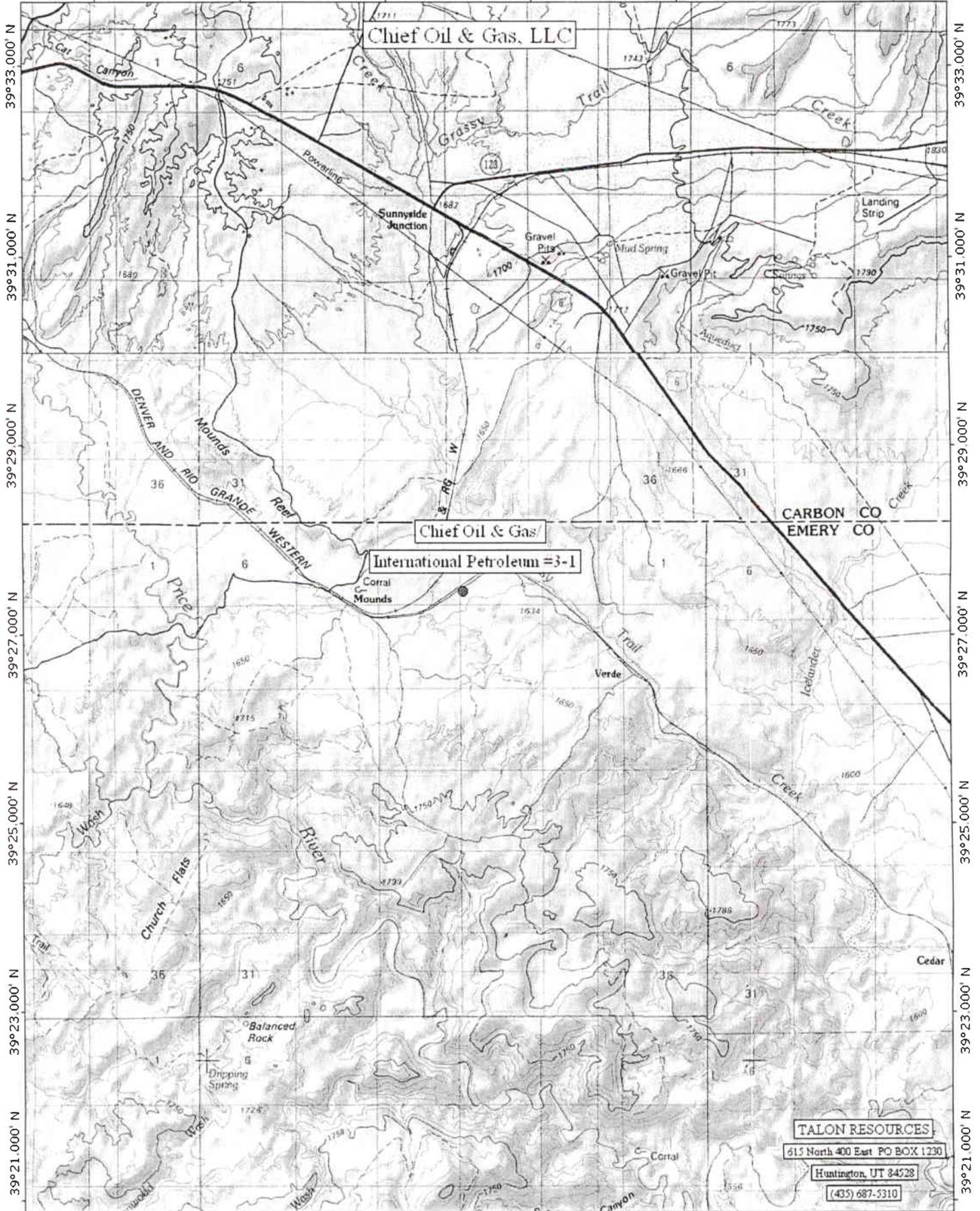
615 N. 400 E., P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talon@etv.net



Chief Oil & Gas/  
 International Petroleum #3-1  
 Section 3, T16S, R12E, S.L.B.&M.  
 Emery County, Utah

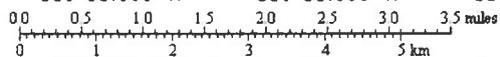
Drawn By: <b>N. BUTKOVICH</b>	Checked By: <b>L.W.J.</b>
Drawing No. <b>L-1</b>	Date: <b>12/14/07</b>
	Scale: <b>1" = 2000'</b>
Sheet <b>4</b> of <b>4</b>	Job No. <b>3279</b>

110°39.000' W 110°37.000' W 110°35.000' W 110°33.000' W 110°31.000' W WGS84 110°28.000' W



110°39.000' W 110°37.000' W 110°35.000' W 110°33.000' W 110°31.000' W WGS84 110°28.000' W

TN 124°



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

**TALON RESOURCES**  
 615 North 400 East PO BOX 1230  
 Huntington, UT 84528  
 (435) 687-5310

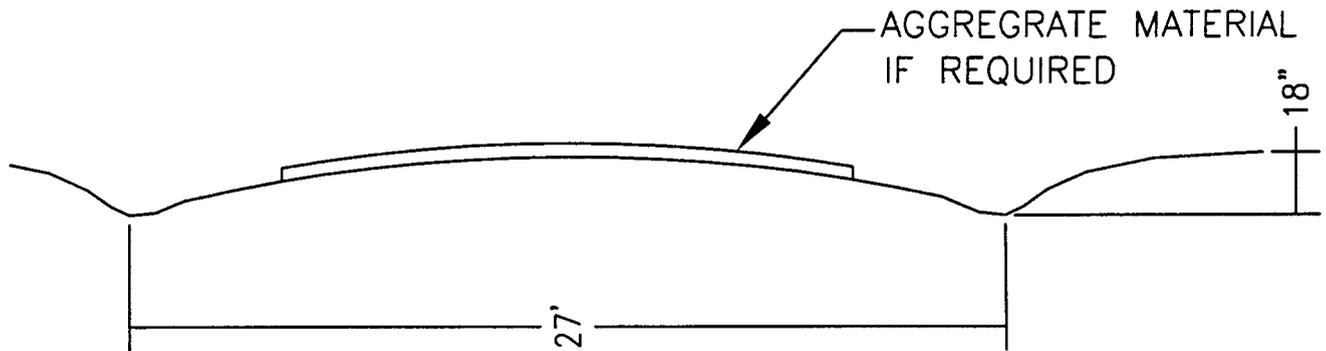


Chief @C/Inter Petro 3-1



Chief OBC/Inter Patr 3-1

# Typical Road Cross-Section



TALON RESOURCES, INC.  
Huntington, Utah 84528

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/08/2008

API NO. ASSIGNED: 43-015-30743

WELL NAME: CHIEF O&G INT PETRO 3-1  
 OPERATOR: CHIEF OIL & GAS LLC ( N3455 )  
 CONTACT: ALLEN CHILDS

PHONE NUMBER: 274-265-9590

PROPOSED LOCATION:

SWSW 03 160S 120E  
 SURFACE: 0786 FSL 0467 FWL  
 BOTTOM: 0786 FSL 0467 FWL  
 COUNTY: EMERY  
 LATITUDE: 39.45741 LONGITUDE: -110.5650  
 UTM SURF EASTINGS: 537423 NORTHINGS: 4367420  
 FIELD NAME: WILDCAT ( 1 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: UTU-77092  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: HMBG  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. B004198 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. MUNICIPAL )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- \_\_\_ R649-2-3.
- Unit: \_\_\_\_\_
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- \_\_\_ R649-3-3. Exception
- \_\_\_ Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_
- \_\_\_ R649-3-11. Directional Drill

COMMENTS: \_\_\_\_\_

STIPULATIONS: 1- Federal Approval  
2- Spacing Strip

T15S R12E

T16S R12E

# GRASSY TRAIL FIELD (INACTIVE)

STATE 2-11

FEDERAL 4-32

FEDERAL 3-23

CHIEF O&G INT  
PETRO 3-1

FEDERAL 10-31

FEDERAL 10-11

FEDERAL 11-11

FEDERAL 11-23

OPERATOR: CHIEF O&G LLC (N3455)

SEC: 3 T.16S R. 12E

FIELD: WILDCAT (001)

COUNTY: EMERY

SPACING: R649-3-2 / GENERAL SITING

- Field Status**
- ABANDONED
  - ACTIVE
  - COMBINED
  - INACTIVE
  - PROPOSED
  - STORAGE
  - TERMINATED

- Unit Status**
- EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PENDING
  - PI OIL
  - PP GAS
  - PP GEOTHERML
  - PP OIL
  - SECONDARY
  - TERMINATED

**Wells Status**

- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL
- DRILLING



OIL, GAS & MINING



PREPARED BY: DIANA MASON  
DATE: 20-FEBRUARY-2008



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

February 25, 2008

Chief Oil & Gas LLC  
5956 Sherry Lane, Ste. 1500  
Dallas, TX 75225

Re: Chief Oil & Gas/International Petroleum 3-1 Well, 786' FSL, 467' FWL, SW SW, Sec. 3,  
T. 16 South, R. 12 East, Emery County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-015-30743.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Emery County Assessor  
Bureau of Land Management, Moab Office

**Operator:** Chief Oil & Gas LLC  
**Well Name & Number** Chief Oil & Gas/International Petroleum 3-1  
**API Number:** 43-015-30743  
**Lease:** UTU-77092

**Location:** SW SW                      **Sec.** 3                      **T.** 16 South                      **R.** 12 East

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281 office      (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

February 20, 2008

Ms. Marie McGann  
Bureau of Land Management  
82 East Dogwood  
Moab, UT 84532

13-015-30743

RE: Request for Suspension of Lease UTU-77092 – Chief Oil & Gas LLC

Ms. McGann,

Chief Oil & Gas LLC, formally submits a request for Lease Suspension for Lease UTU-77092, located in Township 16 South and Range 12 East, SLB&M. Because of the NEPA process required on this lease, it is not possible to begin drilling by the termination date, March 31, 2008. Although a well location has been located and surveyed and an NOS has been submitted (January 18, 2008), and an on site review was performed (January 29, 2008), necessary time for completion of an arch survey and an Environmental Assessment before the termination date of the lease can not be concluded.

Sincerely,

Chief O&G INT Petro 3-1  
16S 12E 3

  
Michael L. Pinnell  
Exploration Manager  
Chief Exploration Development, LLC.

  
Mark Wixom  
Member Manager  
International Petroleum, LLC

  
Deric Shelley  
Member manager  
Hingeline Resources, LLC

Cc: Ms. Louisa Becker  
Mr. Joel Ward  
Mr. Bryon Wixom  
Ms. Diana Mason  
File

Chief Oil & Gas LLC  
Chief Oil & Gas LLC  
International Petroleum  
DOGDM, State Office

RECEIVED  
MAR 03 2008  
DIV. OF OIL, GAS & MINING



# Talon Resources, Inc.

March 14, 2008

Ms. Marie McGann  
Bureau of Land Management  
82 East Dogwood  
Moab, UT 84532

43-015-30743

RE: Response to the BLM letter dated February 27, 2008; Additional information required.

Ms. McGann:

On behalf of Chief Oil & Gas and Chief Exploration Development, Talon Resources formally submits the enclosed responses to your letter, dated February 27, 2008, asking for additional required information concerning the submitted APD for the Chief Oil & Gas / International Petroleum #3-1, located 786 FSL and 467 FWL, Section 3, T16S, R12E.

Should you have any questions or need further information, please contact me at 435-687-5310.

Sincerely

Allen P. Childs  
Talon Resources, Inc

Cc: Ms. Louisa Becker	Chief Oil & Gas LLC
Mr. Joel Ward	Chief Oil & Gas LLC
Mr. Scott Henry	Chief Oil & Gas LLC
Mr. Mike Pinnell	Chief Exploration Development LLC
Mr. Bryon Wixom	International Petroleum
Ms. Diana Mason	DOGM, State Office
File	

RECEIVED

MAR 17 2008

DIV. OF OIL, GAS & MINING

Talon Resources, Inc  
P.O. Box 1230  
615 North 400 East  
Huntington, UT 84528  
Allen P. Childs - 435-687-5310

**Chief Oil & Gas / International Petroleum 3-1**

SWSW Sec 3, T16S, R12E  
786 FSL, 467 FWL  
Grd level = 5376'  
Federal Lease – UTU-77092

1- Attached is the Hydrogen Sulfide Drilling Operations Plan for this well. Potential H<sub>2</sub>S could come from the Navajo formation with an estimated top at 1926'. Chief Oil & Gas will place appropriate H<sub>2</sub>S detectors on the rig floor and at the shaker screen along with a wind sock 500 ft prior to drilling the Navajo formation. All crews will be trained in safety procedures. A Drilling Foreman will be onsite and will be responsible for providing notification and requesting assistance upon detection of a release of H<sub>2</sub>S.

2- Surface Casing -

Surface pipe – 8 5/8", 32 #/ft, K55 - STC 0' to 1000'  
Internal yield – 3930 psi.  
Collapse – 2530 psi

An estimated Lead - 660 cu. ft, 600 sx, Type III cement w/ .2% Versaset, .125 #/sx poly flake, 2% CaCl, 14.5 ppg, yield = 1.1 cf/sx. This cement will be used to cement the casing to surface.

3- Production Casing

From TD to ±5500 ft – Actual volumes to be determined from logs. Approximately one hundred percent excess cement volume will be included in the procedure.

1st stage= 250 cf, 45 bbls, 172 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/sx gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx  
Tail = 507 cf, 90 bbls, 350 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/sx

RECEIVED

MAR 17 2008

DIV. OF OIL, GAS & MINING

gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx

From DV tool ( $\pm 3000'$ ) to estimated 1500 ft, TOC - Actual volumes to be determined from logs.

1st stage= 250 cf, 45 bbls, 172 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/sx gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx

Tail = 507 cf, 90 bbls, 350 sx, Halli CBM lite Type III cement + 2% gel, 0.6% Halad 23, 0.3% halad 322, 0.3% Verset, 0.2% Super CBL, 0.2% HR-2, 1/8 #/sx poly flake + 5#/sx gilsonite + 6.39 gal/sx fresh water, wt= 13.5 ppg, yield = 1.45 cf/sx

All potential producing zones will be covered with cement as interpreted from logs.

**H2S Drilling Operational Plan**

**CHIEF OIL AND GAS, LLC**

**Chief Oil & Gas / International Petroleum #3-1**

**SWSW Sec 3, T16S, R12E**

**786 FSL, 467 FWL**

**EMERY COUNTY UTAH**

**Federal Lease – UTU-77092**

**SAFETY PROGRAM & EMERGENCY EVACUATION PLAN**

**Chief Oil and Gas.  
5956 Sherry Lane, Suite 1500  
Dallas, Texas 75225**

**Phone: 274-265-9590**

## TABLE OF CONTENTS

	PAGE
PURPOSE OF PROGRAM	2
RESPONSIBILITIES AND DUTIES	3
DIRECTIONS TO WELLSITE (Figure #1)	8
LOCAL AREA MAP (Figure #2)	9
THE DRILL SITE	10
DRILLING EQUIPMENT LAYOUT (Figure #3)	13
RESIDENCE WITHIN 3000 FEET RADIUS PLAT OF WELLSITE	14
NAMES AND DUTIES OF PERSONS WITH PRIME RESPONSIBILITIES	15
EMERGENCY NOTIFICATION	16
PHYSICAL AND CHEMICAL PROPERTIES OF HYDROGEN SULFIDE	17
PHYSICAL EFFECTS OF HYDROGEN SULFIDE POISONING	18
H <sub>2</sub> S TOXICITY TABLE	19
RESUSCITATION CHART	20
TREATMENT FOR HYDROGEN SULFIDE POISONING	21
EFFECTS OF HYDROGEN SULFIDE ON METAL	22
CASING AND DRILL PIPE GRADES FOR H <sub>2</sub> S SERVICE	23
DRILL STEM TEST	24
H <sub>2</sub> S EQUIPMENT ON LOCATION	25
IGNITING THE WELL	27
BLOWOUT PREVENTION EQUIPMENT	28
SPECIAL EQUIPMENT	29
MUD ADDITIVES	30
EMERGENCY DRILLS	31

## PURPOSE OF PROGRAM

It is CHIEF OIL AND GAS, LLC practice, to provide for the safety of its employees and contractor's employees at the job site, and to provide for the protection of the environment in accordance with applicable laws and regulations.

The primary purpose of this contingency plan is to guide location personnel in the responses expected of them in the event that hydrogen sulfide (H<sub>2</sub>S) is liberated during the drilling program.

Hydrogen Sulfide is extremely hazardous to normal oil field operations due to its capability (1) of destroying life at very low concentrations and (2) of causing instantaneous failure of high strength metals. Drilling and producing operations of hydrocarbons containing toxic gases can, however, be performed safely and without incident when the necessary precautions are taken and the outlined safety procedures are followed. It is imperative that sulfide resistant materials be used, that the proper safety equipment be used, that this equipment be properly maintained, and that all safety regulations be complied with.

The procedures outlined are for your safety and the safety of all others: therefore, it is mandatory that each individual give his one hundred percent cooperation.

## RESPONSE /NOTIFICATION DUTIES

The following is a description of key personnel responsibilities for incident response.

### **First Responder:**

The First Responder is the first company/contractor employee observing an emergency situation. A First Responder's initial responsibility is to evaluate the situation and ensure their personal safety. If circumstances warrant, sound emergency alert. The First Responder is responsible for notifying a foreman team member. Once notification has been made, the First Responder may take steps to control the situation is safe, they must rely upon their training in H<sub>2</sub>S handling, fire fighting, and first aid to properly address the situation. Their personal safety and care for the injured will always take precedence over any other action taken.

### **Incident Commander:**

The Incident Commander is any foreman team member or anyone who has completed the 40 hours of Hazwoper training. The Incident Commander advises personnel that he/she is assuming the Incident Commander position. The Incident Commander establishes the command center location and reports there. The Incident Commander assumes all responsibility for directing emergency response actions and activities. For most emergency situations, the Incident Commander will designate one or more On-Scene Commanders. Other responsibilities of the Incident Commander include establishing and maintaining communication links, accounting for personnel, contacting outside support services, and arranging guidance for support services. The Incident Commander will also assemble and deploy response teams working closely with the On-Scene Commander(s). Certain Incident Commander responsibilities/duties may be delegated as necessary.

### **On-Scene Commander:**

The Incident Commander will designate one or more On-Scene Commanders. The On-Scene Commander(s) will handle/coordinate tactical decision and the deployment of personnel and equipment at the scene. They will be in direct communication with the Incident Commander to keep them advised of the situation. They are responsible for evaluating the situation, plan of action, and above all the safety of personnel and other companies etc., that are deemed necessary. They will advise the Incident Commander of the need for deployment of the response personnel.

**Foreman:**

The foreman is responsible for a number of contacts and notifications. Dependent upon the situation, these will include:

1. Business Unit Operations Manager
2. Environmental Health and Safety
3. All local media making inquiries
4. Family of injured when applicable

The Foreman is also responsible for documentation of the incident. In certain instances, the Foreman may assume the role of the Incident Commander. As appropriate the Foreman may delegate these duties/responsibilities.

**Field Environmental/Safety Coordinator:**

The Field Environmental/Safety Coordinator is responsible for evaluating the emergency situation for environmental impact, and providing technical assistance to the Incident Commander. The Field Environmental/Safety Coordinator will be responsible for notifying the appropriate reporting agencies. The Field Environmental/Safety will provide guidance in any environmental remediation efforts.

The Field Environmental/Safety Coordinator is responsible for evaluating the hazards of the situation and assuring the safety of all personnel, and providing technical assistance to the Incident Commander. He shall critique the situation, coordinate the investigation and post-appraisal of the incident, and coordinate all required notification in a serious injury or death situation.

**All Other Personnel/Contractors:**

All other personnel and contractors shall understand the H<sub>2</sub>S Plan and respond appropriately to any emergency situation. Their first priority shall be to ensure their own personal safety. They shall also be prepared to follow any instructions from the Incident Commander or On-Scene Commander. All employees and contractors shall be responsible for accounting for assisting any visitors in their area during an emergency.

## **H<sub>2</sub>S RESPONSE DUTIES AND NOTIFICATION**

### **FIRST RESPONDER**

- Evaluate Situation
- Ensure Personal Safety
- Sound Emergency Alert
- Notify Foreman Team Member
- Take Steps to Control Situation if Safe

### **INCIDENT COMMANDER**

- Report to Command Center
- Assign On-Scene Commander
- Maintain Communication Link
- Account for Personnel
- Contact Outside Support Services
- Arrange Guidance for Support Services
- Deploy Response Teams
- Delegate Duties/Responsibilities as Necessary

### **ON-SCENE COMMANDER**

- Establish Communication Link
- Report to Scene
- Account for Personnel at Scene
- Coordinate Emergency Services at Scene

### **NOTIFY IMMEDIATELY**

### **FOREMAN OR DELEGATE**

- Report to Command Center
- Handle Media
- Responsible for Documentation

### **NOTIFY FIELD**

### **ENVIRONMENTAL/SAFETY COORDINATOR**

- Report to Command Center
- Determine Environmental Impact
- Notify Appropriate Agencies
- Determine Environmental Remediation, if needed

## **RESPONSIBILITIES AND DUTIES**

### **ALL PERSONNEL**

1. It is the responsibility of all personnel on location to familiarize themselves with the safety procedures.
2. All personnel will attend to their personal safety first.
3. Help anyone who may be injured or overcome by toxic gases. The Drilling Foreman will assign someone to administer first aid to unconscious person (s).
4. Report to the designated "SAFE BRIEFING AREA" and follow the instructions of the Drilling Foreman.

### **DRILLING FOREMAN**

1. It is the responsibility of the Drilling Foreman as the onsite responsible party with responsibility for providing notification and requesting assistance in the event of an emergency.
2. It is the responsibility of the Drilling Foreman to see that these safety and emergency procedures are observed by all personnel on location.
3. The Drilling Foreman will advise Safety Advisor whenever the procedures as specified herein are complied with or cannot be followed.
4. The Drilling Foreman will notify the Safety Advisor at least two weeks before the safety equipment specified herein is needed.
5. The Drilling Foreman will keep the number of personnel on location to a minimum during hazardous operations.
6. The Drilling Foreman is responsible for designating the "SAFE BRIEFING AREA". This "SAFE BRIEFING AREA" will change depending upon wind direction and must be re-designated as soon as a wind change occurs.
7. If an unexpected emergency occurs or the H<sub>2</sub>S alarm sounds, the Drilling Foreman will assess the situation and will advise all personnel what condition exists.
8. When it is necessary to secure the location, the access road to location will be blocked; personnel from the rig crew will be used to guard same.

### **TEMPORARY SERVICE PERSONNEL**

All service personnel such as cementing crews, logging crews, specialists, mechanics, and welders will furnish their own safety equipment as required to comply with OSHA and the DRILLING FOREMAN for CHIEF OIL AND GAS, LLC

## VISITORS

1. VISITORS will be restricted when Hydrogen Sulfide might be encountered, unless accompanied by the DRILLING FOREMAN for CHIEF OIL AND GAS, LLC
2. VISITORS and non-essential personnel will be prohibited from remaining in or entering contaminated areas where Hydrogen Sulfide concentration in the atmosphere exceeds 10 ppm.

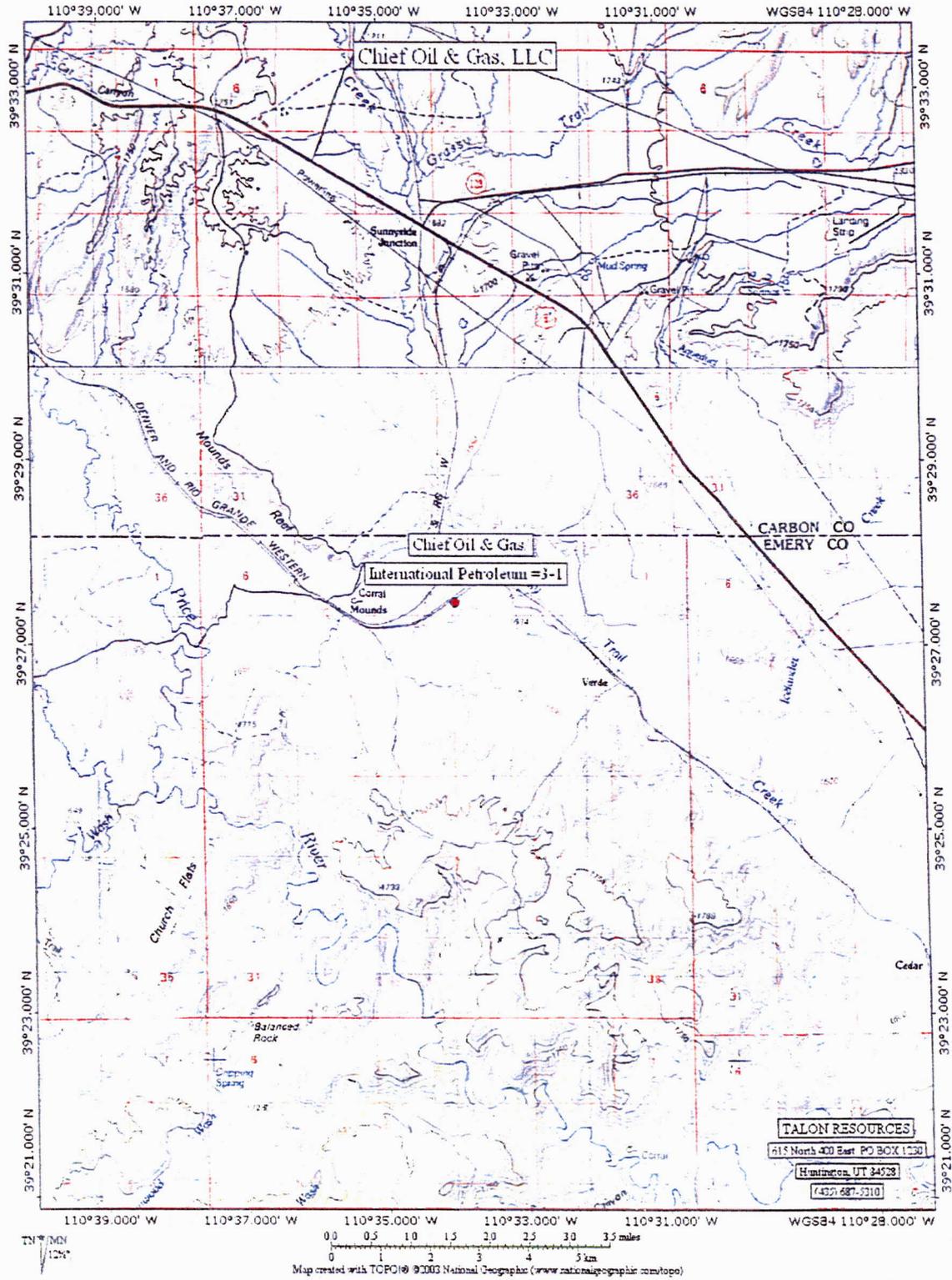
NOTE: WHEN HYDROGEN SULFIDE MIGHT BE ENCOUNTERED NO PERSONNEL ON LOCATION WILL BE PERMITTED TO SLEEP IN VEHICLES.

**F e d e r a l 3 0 - 1**  
**LOCATED - SWSW Sec 3, T16S, R12E**  
**786 FSL 467 FWL**  
**EMERY COUNTY UTAH**

**Directions to location**

From the intersection of Center Street and State Highway 6 in Wellington Utah, travel 6.2 miles east on Highway 6 to the intersection of the West Mounds county road. Turn south on the West Mounds road. Travel 7.9 miles to the railroad crossing. Cross the railroad, travel 1.8 miles east on an existing dirt road that parallels the railroad tracks. The well, Chief Oil & Gas / International Petroleum #3-1, is located 400' south and east off this dirt road. Access to the well runs perpendicular to the dirt road

# Map of Area





## THE DRILL SITE

The location as shown in Figure 3 is planned in order to obtain the maximum safety benefits consistent with the rig configuration, well depth, and prevailing winds.

1. Through the use of several maps, the area within a 3000 feet radius of the location has been surveyed and contacts with all permanent residents have been made. Except in a dead calm and a tremendous release of high concentration gases, the probability of lethal dosages beyond 3000 feet is extremely unlikely. Note on the rig layout plat, Figure 3, the direction of prevailing winds.
2. The location of houses, schools, roads, and anything where people may be present and who might need to be warned or evacuated in a crisis have been surveyed. This information with names and telephone numbers are keyed and listed on page 16 for use if evacuation might be necessary should an emergency develop.
3. The drilling rig, see Figure 3, should be situated at such a location that prevailing winds blow across the rig toward the flare pit.
4. Two (2) SAFETY BRIEFING AREAS will be established not less than 200 feet from the wellhead and in locations so that at least one SAFE BRIEFING AREA will be up-wind of the well at all times.
5. Protective equipment will be stored in strategic locations around the well-site and each of the SAFE BRIEFING AREAS. Such equipment will include Self Contained Breathing Apparatus (SCBA), First Aid Kits, Stretchers, and Hydrogen Sulfide Hand Operated Detectors . In the event of an emergency, personnel should assemble at the up-wind SAFE BRIEFING AREA for instructions from their supervisor.
6. Windsocks or streamers will be utilized to give wind directions at several elevations; i.e., tree top, derrick floor level, and 6 to 8 feet above ground level. PERSONNEL SHOULD DEVELOP THE PRACTICE OF ROUTINE OBSERVATION OF WIND DIRECTION.
7. Windbreakers and rig curtains can be removed from around the derrick floor and monkey board, if hazardous amounts of H<sub>2</sub>S encountered.
8. Explosion proof ventilating fans if required will be positioned to ensure adequate circulation at the derrick floor, cellar area and any other location where hydrogen sulfide is accumulating in excess of 10 PPM.
9. A kill line of ample strength and securely staked should be laid to the well head from a safe location to permit pumping into the well in an emergency.

10. Chief Oil and Gas, LLC will drill with mud down to 1200' & set surface. Chief Oil and Gas, LLC will then be drilling underbalanced w/ nitrified inermul to TD, with rotating head, annular, and double ram BOP, circulating through a 4 phase separator. IF H<sub>2</sub>S is encountered, the mud could be maintained in an over balanced condition to preclude the entry of formation fluids into the well-bore and thereby restrict Hydrogen Sulfide to the formation it came from and to treat it in the same formation.
11. When approaching a depth where Hydrogen Sulfide may be encountered, appropriate operational danger or caution sign(s) shall be displayed along all controlled accesses to the site. The sign(s) shall be legible and large enough to be read by all persons entering the well site and be placed a minimum of 200 feet but no more than 500 feet from the well site which allows vehicles to turn around at a safe distance prior to reaching the site. Each sign shall be painted a high visibility red, black and white or yellow with black lettering.
12. When available 24-hour radio or telephone communication will be provided at the rig. Emergency telephone numbers will be prominently posted: SHERIFF'S DEPARTMENT, AMBULANCE, HOSPITALS, DOCTORS, AND OPERATORS' SUPERVISORY PERSONNEL.
13. Filter-type gas masks are not suitable for protection from Hydrogen Sulfide on drilling rigs. Pressure demand, SCBA'S will be provided for use in any Hydrogen Sulfide concentration. They are not physically exhausting to use, are rugged and dependable, and require little maintenance.
14. SCBA'S will be stored on racks and protected from the weather. Rig crew equipment will be located at readily accessible location on the rig floor. For hygienic reasons, SCBA'S are to be cleaned and sterilized at regular intervals. Employees working derricks will be equipped with a connection through a quick-disconnect from this system of breathing air so that if he must evacuate the derrick he will have a full air bottle with his SKA Pac. A six outlet air supply manifold will be installed on the rig floor for continuous use by crews and supervisory personnel working in a "Mask On" situation. The multi-bottle supply cylinders are to be located approximately 200 feet from the well. A minimum of 3,600 cu. ft. compressed breathing air will be on location at all times.
15. An alarm system which can be heard during operations and which can be activated from several points if gas is detected will be installed. When the alarm is sounded, personnel must assemble at the BRIEFING AREA designated SAFE. However, your company may have steps different from these, so pay heed to the requirements on your rig.
16. There will be No Smoking on rig floor or near wellhead. Designated Smoking Areas will be provided by your Supervisor.

17. Safety meetings and training sessions will be held at frequent intervals by the Safety Advisor, the Drilling Supervisor, or the Rig Supervisor. All personnel required to work on location will be thoroughly familiar with the use, care and servicing of the following: Personal protective equipment such as respirators, and gas detection equipment.
18. All personnel who will be working at the well-site will be properly trained in H2S drilling and contingency procedures in accordance with the general training requirements outlined in the American Petroleum Institute's (API) Recommended Practice (RP) 49 (April 15, 1987 or subsequent editions) for Safe Drilling of Wells Containing Hydrogen Sulfide, Section 2. The training shall be accomplished prior to a well coming under the terms of BLM Onshore Order 6 (i.e., 3 days or 500 feet of known or probable H2S zone). In addition weekly H2S and well control drills for all personnel in each working crew shall be conducted. The initial training session for each well shall include a review of the site specific Drilling Operations Plan and, if applicable, the Public Protection Plan.
19. All training sessions and drills shall be recorded on the driller's log or its equivalent.
20. All electric lighting, wiring and electrical devices within 100 feet of the well will be put in vapor-proof condition to minimize the possibility of explosion.
21. Blowout preventers should meet or exceed the recommendations for hydrogen sulfide service (API RP 53). Choke manifolds will be of similar materials.
22. Inspection of installation, operation, and testing of blowout preventers, choke manifolds, etc., dressed for Hydrogen Sulfide services, will be conducted regularly.
23. Every person involved in the operation will be informed of the characteristics of Hydrogen Sulfide and its dangers, safe procedures to use when it is encountered, and recommended first aid procedures. This will be done through frequent safety talks and training sessions.
24. Operational danger or caution sign(s) shall be displayed along all controlled accesses to the site. sign shall be highly visible and the sign(s) shall be legible and large enough to be read by all persons entering the well site and be placed a minimum of 200 feet but no more than 500 feet from the well site and at a location which allows vehicles to turn around at a safe distance prior to reaching the site.
25. When H2S is detected in excess of 10 ppm at any detection point, red flag(s) shall be displayed. When H2S is detected in excess of 10 ppm at any detection point, all non-essential personnel shall be moved to a safe area and essential personnel (i.e., those necessary to maintain control of the well) shall wear pressure-demand type protective breathing apparatus. Once accomplished, operations may proceed.

**A flare system shall be designed and installed to safely gather and burn H2S-bearing gas. Flare lines shall be located as far from the operating site as feasible and in a manner to compensate for wind changes. The flare line(s) mouth(s) shall be located not less than 150 feet from the well-bore. Flare lines shall be straight unless targeted with running tees. The flare system shall be equipped with a suitable and safe means of ignition. Where noncombustible gas is to be flared, the system shall be provided with supplemental fuel to maintain ignition.**

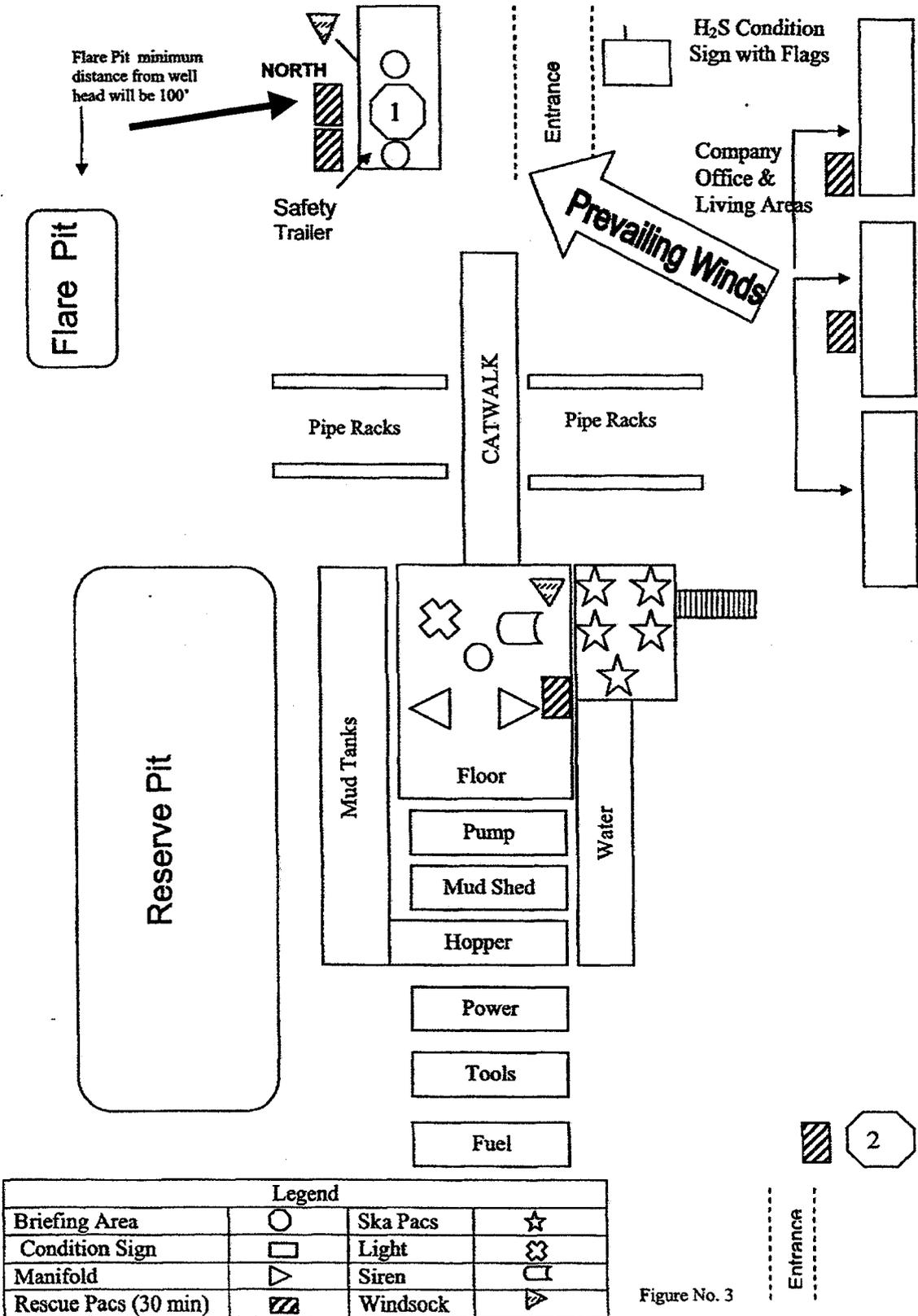


Figure No. 3

**RESIDENCE WITHIN 3000 FEET OF WELLSITE**

**NO RESIDENCES WITHIN 3000' OF WELLSITE**

See Map L-1, Page 9-B

Roads to this area are lightly traveled by the public. Assistance is requested from public officials to man possible needed road blocks and help in controlling access upon detection of a release of H<sub>2</sub>S.

The Union Pacific Railroad runs East and West through this area. The Railroad Right-of-way is 100' each side of the center on the main track. Contact Paul Crespian of the Union Pacific Railroad, Phone numbers being:

Office: 801-212-5280

Cell: 435-650-4082

Assistance is requested from public officials with possible restricted usage of this railroad upon detection of a release of H<sub>2</sub>S.

**NAMES AND DUTIES OF PERSONS WITH PRIME RESPONSIBILITIES**

**CHIEF OIL AND GAS, LLC**

Site Supervisor (Drilling)

Pending

Drilling Manager

Pending

Chief Oil and Gas, LLC –

Operations Engineering Dept – (214)265-9590

**SAFETY Advisor**

Pending

EMERGENCY NOTIFICATION

LOCAL OFFICIALS AND MEDICAL

<u>Green River, UTAH</u>	<u>EMERY COUNTY</u>
AMBULANCE.....	911
Green River Medical .....	435-564-3434
Air Ambulance, Grand Junction .....	800-332-4923
HOSPITAL .....	911
Grand Junction, CO .....	970-244-2273
Moab, UT .....	435-259-8115
DOCTOR .....	911
FIRE.....	911
SHERIFF.....	911
POLICE.....	911

GOVERNMENTAL AGENCIES

BUREAU OF LAND MANAGEMENT .....	(435) 259-2100
Eric Jones  Petroleum Engineer .....	(435) 259-2117
UTAH Natural Resources, Bart Kettle .....	(435) 820-0862
UTAH EMERGENCY ASSISTANCE.....	800-
AIR AMBULANCE Grand Junction, CO .....	800-442-2222
US FOREST SERVICE.....	NA
National Emergency Response Center.....	800-424-8802

## PHYSICAL AND CHEMICAL PROPERTIES

1. Extremely toxic (almost as toxic as Hydrogen Cyanide and 5 to 6 times toxic as Carbon Monoxide).
2. Colorless.
3. Offensive odor, often described as that of rotten eggs.
4. Heavier than air - specific gravity 1.189 (Air = 1.000 @ 60 F.). Vapors may travel considerable distance to a source of ignition and flash back.
5. Forms an explosive mixture with a concentration between 4.3 and 46 percent by volume with auto-ignition occurring at 500 F.
6. Burns with a blue flame and produces Sulfur Dioxide (SO<sub>2</sub>), which is less toxic than Hydrogen Sulfide but very irritating to eyes and lungs and causes serious injury.
7. Soluble in both Water and liquid hydrocarbons.
8. Produces irritation to eyes, throat and respiratory system.
9. Threshold Limit Value (TLV) - Maximum of eight hours exposure.
10. Corrosive to all electrochemical series metals.
11. Boiling Point (-79 F).
12. Melting Point (-177 F).

## PHYSICAL EFFECTS OF HYDROGEN SULFIDE POISONING

THE PRINCIPAL HAZARD IS DEATH BY INHALATION. When the amount of gas absorbed into the blood stream exceeds that which is readily oxidized, systemic poisoning results, with a general action on the nervous system. Labored respiration occurs shortly, and respiratory paralysis may follow immediately at concentrations of 700 ppm and above. This condition may be reached almost without warning as the originally detected odor of Hydrogen Sulfide may have disappeared due to olfactory paralysis. Death then occurs from asphyxiation unless the exposed person is removed immediately to fresh air and breathing stimulated by artificial respiration. Other levels of exposure may cause the following symptoms individually or in combinations:

- a. Headache
- b. Dizziness
- c. Excitement
- d. Nausea or gastro-intestinal disturbances
- e. Dryness and sensation of pain in nose, throat and chest
- f. Coughing
- g. Drowsiness

All personnel should be alerted to the fact that detection of Hydrogen Sulfide solely by smell is highly dangerous as the sense of smell is rapidly paralyzed by the gas.

## H2S TOXICITY TABLE

PPM	%	Reaction
1 ppm	.0001% (1/10,000 of 1%)	Can smell
10 ppm	.001% (1/1000 of 1%)	Allowable for 8 hours exposure. Over the allowable concentration, protective equipment will be necessary.
100 ppm	.01% (1/100 of 1%)	Kills smell in 3 to 15 minutes. May burn eyes and throat.
500 ppm	.05% (5/100 of 1%)	Loses sense of reasoning and balance. Respiratory disturbances in 2 to 15 minutes. Needs prompt artificial resuscitation.
700 ppm	.07% (7/100 of 1%)	Will become unconscious quickly. Breathing will stop and death results if not rescued promptly. Immediate artificial resuscitation.
1,000 ppm	10% (1/10 of 1%)	Unconscious at once. Permanent brain damage may result unless rescued promptly.

ppm = Parts of gas per million parts of air by volume.

1% = 10,000 ppm

**RESUSCITATION CHART**

**DID YOU KNOW?**

**THERE IS NO TIME TO WASTE**  
**WHEN BREATHING STOPS!**

**ARTIFICIAL RESUSCITATION MUST BE STARTED IMMEDIATELY!!!**

After Breathing is Stopped for:	The Chances for Life are:
1 Minute	98 out of 100
2 Minutes	92 out of 100
3 Minutes	72 out of 100
4 Minutes	50 out of 100
5 Minutes	25 out of 100 *
6 Minutes	11 out of 100 *
7 Minutes	8 out of 100*
8 Minutes	5 out of 100*
9 Minutes	2 out of 100*
10 Minutes	1 out of 100 *
11 Minutes	1 out of 1,000 *
12 Minutes	1 out of 10,000 *

\* Irreparable brain damage starts at about the fifth minute.

**COOL-HEADED ACTION IN RESCUE IS CRITICAL.**

## TREATMENT FOR HYDROGEN SULFIDE POISONING

### INHALATION

As Hydrogen Sulfide in the blood oxidizes rapidly, symptoms of acute poisoning pass off when inhalation of the gas ceases. It is important, therefore, to get the victim of poisoning to fresh air as quickly as possible. He should be kept at rest and chilling should be prevented. If respiration is slow, labored, or impaired, artificial respiration may be necessary. Most persons overcome by Hydrogen Sulfide may be revived if artificial respiration is applied before the heart action ceases. Victims of poisoning should be under the care of a physician as soon as possible. Irritation due to sub-acute poisoning may lead to serious complications such as pneumonia. Under those conditions, treatment by the physician necessarily would be symptomatic. The patient should be kept in fresh air, and hygienic conditions should be watched carefully.

### CONTACT WITH EYES

Eye contact with liquid and/or gas containing Hydrogen Sulfide will cause painful irritation (conjunctivitis). Keep patient in a darkened room, apply ice compresses to eyes, put ice on forehead, and send for a physician. Eye irritation caused by exposure to Hydrogen Sulfide requires treatment by a physician, preferably an eye specialist. The progress to recovery in these cases is usually good.

### CONTACT WITH SKIN

Skin absorption is very low. Skin discoloration is possible after contact with liquids containing Hydrogen Sulfide. If such skin contact is suspected, the area should be thoroughly washed.

## EFFECTS OF HYDROGEN SULFIDE ON METAL

Hydrogen Sulfide dissolves in water to form a weak acid that can cause some pitting, particularly in the presence of oxygen and/or carbon dioxide. However, the most significant action of H<sub>2</sub>S is its contribution to a form of hydrogen embrittlement known as sulfide stress cracking. Sulfide stress cracking is a result of metals being subjected to high stress levels in a corrosive environment where H<sub>2</sub>S is present. The metal will often fail catastrophically in a brittle manner.

Sulfide stress cracking of steel is dependent upon and determined by:

- a. Strength (hardness) of the steel - the higher the strength, the greater the susceptibility to sulfide stress cracking. Steels having yield strengths up to 95,000 psi and hardness up to Rc22 are generally resistant to sulfide stress cracking. These limitations can be extended slightly higher for properly quenched and tempered materials.
- b. Total member stress (load) - the higher the stress level (load) the greater the susceptibility to sulfide stress cracking.
- c. Corrosive environment - corrosive reactions, acids, bacterial action, thermal degradation, or low PH fluid environment.

Use as protection against sulfide stress cracking, all casing, BOP and safety equipment should be of H<sub>2</sub>S resistant material.

**CASING GRADES ACCEPTABLE FOR H2S SERVICE**

<u>CASING GRADE</u>	<u>H2S SERVICE</u>	<u>COMMENTS **</u>
H-40	YES	
K-55	YES	
C-75	YES	
N-80	CONDITIONAL	ABOVE 200 F
L-80	YES	
MN-80	YES	
C-90	YES	
C-95	YES	
S-95	NO	ABOVE 200 F
S00-95	NO	ABOVE 200 F
S-105	NO	ABOVE 200 F
S00-90	YES	ABOVE 200 F
P-110	NO	ABOVE 200 F
S-135	NO	ABOVE 200 F
V-150	NO	ABOVE 200 F

\* Service conditions for any H<sub>2</sub>S environment.

\*\* Denotes usable grades above 200 F.

**DRILL PIPE GRADES FOR H2S SERVICE**

<u>GRADE</u>	<u>H2S SERVICE</u>
D YES	
E YES	
X-95 YES	
G-105	NO
S-135	YES
ALUMINUM	YES

## DRILL STEM TEST

1. Drill Stem testing shall be done during daylight hours whenever practical. If it is necessary to work under artificial light, levels shall be sufficient to allow employees to conduct the test safely.
2. Ammine Corrosion Inhibitor should be used to coat inside of drill pipe prior to conducting Drill Stem Test in order to prevent Sulfide Stress Cracking.
3. If warranted, the use of Ammonia Hydroxide (26 Degree B'eaume Aqua Ammonia) for neutralizing Hydrogen Sulfide from tubing or drill pipe can be used.

## H2S SAFETY EQUIPMENT ON LOCATION

(PROVIDED BY SAFETY CONTRACTOR)

1. One safety trailer with a cascade system of cylinders of compressed GRADE D breathing air, complete with high pressure regulator.
2. Low pressure breathing air line (approximately 1,000 feet depending on the location). Equipped with quick connects.
3. Two low pressure manifold systems.
4. Seven pressure-demand type breathing apparatus (SCBA) 30 minute duration, NIOSH, and MSHA approved.
5. Five airline breathing apparatus c/w 7 cu. ft. egress cylinders.
6. One three channel fixed electronic monitoring system with sensors and alarms (explosion proof light and siren).
7. One hand operated portable pump type (with low and high range H<sub>2</sub>S /SO<sub>2</sub> detector tubes.
8. One first aid kit.
9. One stretcher (Ferro folding).
10. Three luminous wind socks with frames and extension poles. Wind socks must be placed so that they are visible by day and by night from all points on location.
11. One high pressure compressed breathing air refill hose.
12. One operating condition sign with flags at well entrance.  
Condition I – (Green Flag) Operations Normal;  
Condition II – (Yellow Flag) Caution H<sub>2</sub>S May Be Present  
Condition III – (Red Flag) EXTREME DANGER, H<sub>2</sub>S DETECTED.
13. One Flare Pistol w/Flares
14. One fire blanket.
15. One warning light.
16. One warning siren.

17. Two compressed breathing air cylinders for briefing area number 2.

18. Briefing area stand

19. Briefing area number 2 sign.

**NOTE: ADDITIONAL EQUIPMENT WILL BE ADDED IF WELL CONDITIONS REQUIRE OR UPON REQUEST**

**NOTE: Equipment for a maximum of twelve (12) people on location.**

Equipment will be rigged up and operational when drilling reaches a depth of 1500 ft. , prior to penetrating the Navajo zone containing or reasonably expected to contain H<sub>2</sub>S.

## IGNITING THE WELL

### RESPONSIBILITY

THE DECISION TO IGNITE THE WELL IS THE RESPONSIBILITY OF THE DRILLING FOREMAN. In the event he is incapacitated, it becomes the responsibility of the Rig Tool Pusher. This decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.
2. No hope exists for controlling the blowout under prevailing conditions at the well.

Notify the Safety Company office, if time permits, but do not delay if human life is in danger. Initiate first phase of evacuation plan.

### INSTRUCTIONS FOR IGNITING THE WELL

1. Two people are required for the actual igniting operation. They must wear self-contained breathing units and have a safety rope attached. One man will check the atmosphere for explosive gases with an Explosive meter. The other man is responsible for igniting the well.
2. Primary method to ignite: Meteor-type Flare Gun.
3. Ignite upwind and do not approach any closer than is warranted.
4. Select the ignition site which is best for protection.
5. Select area for hasty retreat.
6. BEFORE FIRING, check regarding combustible gases.
7. Since Hydrogen Sulfide converts to Sulfur Dioxide, the area is not safe after igniting the well.
8. After igniting, continue emergency action and procedure as before.
9. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

**REMEMBER: AFTER WELL IS IGNITED & BURNING HYDROGEN SULFIDE WILL CONVERT TO SULFUR DIOXIDE, WHICH IS ALSO HIGHLY TOXIC. DO NOT ASSUME THE AREA IS SAFE AFTER THE WELL IS IGNITED.**

### **BLOWOUT PREVENTION EQUIPMENT**

1. A kill line of ample strength and length should be laid to a safe point to allow pumping into the well in an emergency situation.
2. The closing unit should be located a safe distance from the well-bore and positioned for maximum utilization based on the prevailing wind direction.
3. BOP equipment will be tested in accordance with standard company practice.
4. All equipment should be H<sub>2</sub>S trimmed for service in sour gas environments. The metallurgical properties of the materials used shall conform to the current National Association of Corrosion Engineers (NACE) Standard MR 0175-90, *Material Requirement, Sulfide Stress Cracking Resistant Metallic Material for Oil Field Equipment*.
5. All drill pipe and casing will be of a grade acceptable for H<sub>2</sub>S service.

## SPECIAL EQUIPMENT

1. If a MUD-GAS SEPARATOR is installed, it will be installed with one or more flare lines.
2. A flare system shall be designed and installed to safely gather and burn H<sub>2</sub>S-bearing gas. Flare lines shall be located as far from the operating site as feasible and in a manner to compensate for wind changes. The flare line(s) mouth(s) shall be located not less than 150 feet from the wellbore. Flare lines shall be straight unless targeted with running tees and securely staked.
3. Flare Systems must be equipped with a safe and suitable means of ignition. The ignition system shall be provided with supplemental fuel to maintain ignition and must either be electrically or gas operated. Buckets of diesel fuel and torches are not recommended.
4. An automatic Hydrogen Sulfide monitor will be installed with a combination visual and audible alarm system located where it can be seen and/or heard throughout the drilling location. This system will have the capabilities of being activated from several points, which are the rig floor, cellar, and shale shaker.
5. The automatic monitor should be set to trigger the drilling location visual/audible alarms when the Hydrogen Sulfide concentration in the atmosphere reaches 10 ppm. Explosion proof lights and sirens will be provided at or near the rig floor and such that all personnel will be subject to visual and audible warnings.
6. When H<sub>2</sub>S is detected in excess of 10 ppm at any detection point, red flag(s) shall be displayed. When H<sub>2</sub>S is detected in excess of 10 ppm at any detection point, all non-essential personnel shall be moved to a safe area and essential personnel (i.e., those necessary to maintain control of the well) shall wear pressure-demand type protective breathing apparatus. Once accomplished, operations may proceed.

## MUD ADDITIVES

### DRILLING FLUID RECOMMENDATION

#### MUD TYPE

Chief Oil and Gas, LLC will drill with mud down to 1200' & set surface. Chief Oil and Gas, LLC will then be drilling balanced to TD, with rotating head, annular, and double ram BOP, circulating through a 4 phase separator. If H<sub>2</sub>S is encountered, the mud could be maintained in an over balanced condition to preclude the entry of formation fluids into the well-bore and thereby restrict Hydrogen Sulfide to the formation it came from and to treat it in the same formation with necessary additives for all stabilization.

In the event of H<sub>2</sub>S contamination of the mud system, Hydrogen Sulfide scavengers should be added to the mud.

Quantities of zinc carbonate or ironite sponge will be available on location should H<sub>2</sub>S neutralizer be necessary.

## EMERGENCY DRILLS

### Hydrogen Sulfide Alarm Drills

The Safety Advisor will conduct frequent H<sub>2</sub>S emergency drills for each crew by manually activating the H<sub>2</sub>S detector. When the lights flash, all personnel on location will assemble at the Upwind Briefing Area. A head count will be taken at this time to determine if rescue operations are indicated. The Safety Advisor must be notified if more personnel are on location than during normal operations. A "Masks On" policy will prevail until the all clear is sounded. These drills will be implemented as frequently as required to familiarize all personnel with the procedures to be followed in the event an actual emergency occurs.

**CONFIDENTIAL**

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-77092
2. NAME OF OPERATOR: Chief Oil & Gas LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
3. ADDRESS OF OPERATOR: 5956 Sherry Ln, Ste 1500 CITY Dallas STATE TX ZIP 75225		7. UNIT or CA AGREEMENT NAME: N/A
4. LOCATION OF WELL FOOTAGES AT SURFACE: 786' FSL, 467' FWL COUNTY: Emery		8. WELL NAME and NUMBER: Chief Oil & Gas/International Petroleum3-1
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 3 16S 12E S STATE: UTAH		9. API NUMBER: 4301530743
		10. FIELD AND POOL, OR WILDCAT: Exploratory

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: <u>Extend State Permit</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Chief Oil and Gas LLC hereby requests a one year extension of the state permit for the referenced well.

**Approved by the  
 Utah Division of  
 Oil, Gas and Mining**

COPY SENT TO OPERATOR  
 Date: 4.22.2009  
 Initials: KS

Date: 04-21-09  
 By: [Signature]

NAME (PLEASE PRINT) <u>Allen P. Childs</u>	TITLE <u>Agent for Chief Oil &amp; Gas LLC</u>
SIGNATURE <u>[Signature]</u>	DATE <u>4/17/09</u>

(This space for State use only)

**RECEIVED**  
**APR 20 2009**  
 DIV. OF OIL, GAS & MINING



**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 4301530743  
**Well Name:** Chief Oil & Gas/International Peroleum. 3-1  
**Location:** SW/4 SW/4 Section 3, T16S, R12E SLB&M  
**Company Permit Issued to:** Chief Oil & Gas, LLC  
**Date Original Permit Issued:** 2/25/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes  No

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes  No

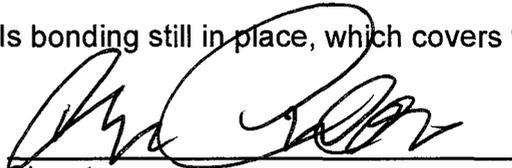
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes  No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes  No

Has the approved source of water for drilling changed? Yes  No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes  No

Is bonding still in place, which covers this proposed well? Yes  No

  
Signature

4/17/09  
Date

Title: Agent for Chief Oil & Gas LLC

Representing: Chief Oil & Gas LLC

RECEIVED

APR 20 2009

DIV. OF OIL, GAS & MINING

**Earlene Russell - Re: Chief Oil & Gas, LLC**

**From:** Earlene Russell  
**To:** Leslie\_Wilcken@blm.gov  
**Date:** 12/28/2009 3:08 PM  
**Subject:** Re: Chief Oil & Gas, LLC *N3455*

*43-015-30743  
Chief O+G Dept Petro 3-1  
T16 S R12 E Sec 03  
UTU - 77092*

**CONFIDENTIAL**

Hi Leslie,  
Often, your lessee is different from the operator of record.

The permit we received had the name of Chief Oil & Gas, LLC. It is advisable for the operator to be registered with the Utah Division of Corporations.

Since BLM has not approved the permit for this well, I have noted such our data screen and am sending a copy of this e-mail to be scanned and added to the well file.

Thanks for keeping <sup>us</sup> informed.  
Earlene

>>> <Leslie\_Wilcken@blm.gov> 12/24/2009 10:38 AM >>>

Hi Earlene,

I was reviewing Chief's BLM bond and discovered that they let their business license expire. In your database they have an approved APD. BLM has not approved it as of today. API is 43-015-30743. They do however, have a business license in the name of Chief Exploration & Development, LLC and they also have interest in Federal leases under this name.

Just thought I'd let you know.

Happy Holidays!

~~~~~  
Leslie Wilcken  
Land Law Examiner  
BLM-Utah State Office  
801-539-4112 Desk  
801-539-4200 Fax  
~~~~~



GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

May 12, 2010

Allen Childs  
Chief Oil & Gas LLC  
5956 Sherry Lane, Ste. 1500  
Dallas, TX 75225

Re: APD Rescinded – Chief O&G/International Petro. 3-1, Sec. 3, T.16S, R.12E, Emery County, Utah API No. 43-015-30743

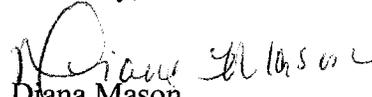
Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on February 25, 2008. On April 21, 2009, the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective May 12, 2010.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Moab



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Green River District, Price Field Office  
125 South 600 West  
Price, UT 84501  
<http://www.blm.gov/ut/st/en/fo/price.html>



RECEIVED

MAR 10 2014

DIV. OF OIL, GAS & MINING

MAR 06 2014

IN REPLY REFER TO:  
3103 (UTG021)  
UTU-77092

CERTIFIED MAIL – RETURN RECEIPT REQUESTED  
#7010-1870-0002-7017-1596

Chief Oil & Gas, LLC  
5956 Sherry Lane, Suite 1500  
Dallas, Texas 75225

43 OIS 307A3

Re: International Petroleum #3-1 APD, Lease UTU-77092  
SWSW S3 T16S R12E, Emery County, Utah

To whom it may concern:

The Application for Permit to Drill (APD) for the above-referenced well, submitted February 7, 2008, is being returned unapproved. In a letter dated December 20, 2013, the Bureau of Land Management Price Field Office (PFO) requested you contact us within 30 days if you were still interested in conducting drilling operations on the above-mentioned well.

As of this date, the PFO has not heard from you concerning this APD. If you intend to drill a well on this lease at a future date, a new APD must be submitted.

If you have any questions regarding this matter, please contact Leslie Peterson at (435) 636-3661.

Sincerely,

Ahmed Mohsen  
Associate Field Manager

Enclosure

cc: Utah Division of Oil, Gas and Mining  
Attn: Brad Hill  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84116

Becky Hammond (UT-922)