

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

5. Lease Serial No. UTU-34346
6. If Indian, Allottee or Tribe Name N/A
7. If Unit or CA Agreement, Name and No. Hawkeye
8. Lease Name and Well No. Hawkeye Federal S-23-8-16
9. API Well No. 43013-33261
10. Field and Pool, or Exploratory Monument Butte
11. Sec., T., R., M., or Blk. and Survey or Area Sec. 23, T8S R16E
12. County or Parish Duchesne
13. State UT

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone	
2. Name of Operator Newfield Production Company	
3a. Address Route #3 Box 3630, Myton UT 84052	3b. Phone No. (include area code) (435) 646-3721
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NW/SE 1852' FSL 1836' FEL At proposed prod. zone 1321' FSL 1326' FEL	
14. Distance in miles and direction from nearest town or post office* Approximatley 11.4 miles southwest of Myton, Utah	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1321' f/lse, 1326' f/unit	16. No. of Acres in lease 480.00
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1033'	17. Spacing Unit dedicated to this well 20 Acres
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5469' GL	20. BLM/BIA Bond No. on file UTB000192
22. Approximate date work will start* 4th Quarter 2006	23. Estimated duration Approximately seven (7) days from spurt to ng release.

24. Attachments

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

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Mandie Crozier</i>	Name (Printed/Typed) Mandie Crozier	Date 7/25/06
Title Regulatory Specialist		
Approved by (Signature) <i>Bradley G. Hill</i>	Name (Printed/Typed) BRADLEY G. HILL	Date 08-17-06
Title ENVIRONMENTAL MANAGER		

Application approval does not warrant or certify the 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 reverse)

Surf 578164x
4439192y
40 101287
-110.082978

BHL 578321x
4439029y
40 099803
-110.081154

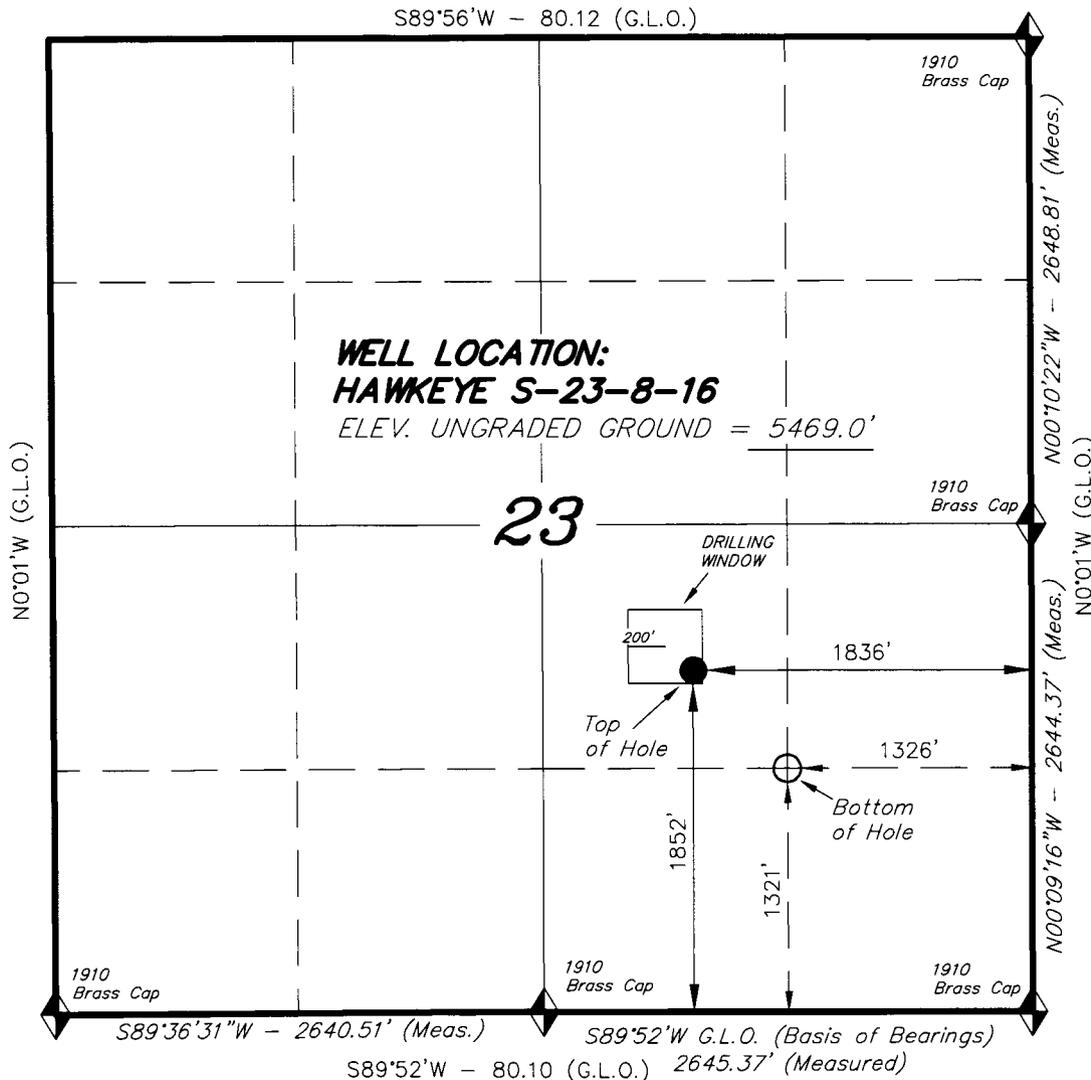
Federal Approval of this
Action is Necessary

RECEIVED
JUL 31 2006
DIV. OF OIL, GAS & MINING

T8S, R16E, S.L.B.&M.

NEWFIELD PRODUCTION COMPANY

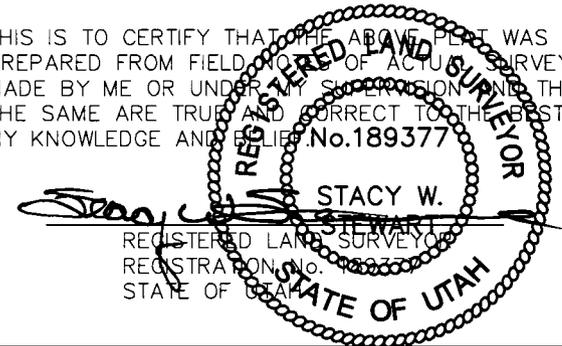
WELL LOCATION, HAWKEYE S-23-8-16,
 LOCATED AS SHOWN IN THE NW 1/4 SE
 1/4 OF SECTION 23, T8S, R16E,
 S.L.B.&M. DUCHESNE COUNTY, UTAH.



Note:

1. The bottom of hole bears S43°59'08"E 736.02' from the well head.

THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS
 PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS
 MADE BY ME OR UNDER MY SUPERVISION AND THAT
 THE SAME ARE TRUE AND CORRECT TO THE BEST OF
 MY KNOWLEDGE AND BELIEF. No. 189377



◆ = SECTION CORNERS LOCATED

BASIS OF ELEV;
 U.S.G.S. 7-1/2 min QUAD (MYTON SE)

HAWKEYE S-23-8-16
 (Surface Location) NAD 83
 LATITUDE = 40° 06' 04.48"
 LONGITUDE = 110° 05' 01.58"

TRI STATE LAND SURVEYING & CONSULTING

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078
 (435) 781-2501

DATE SURVEYED: 5-20-06	SURVEYED BY: D.P.
DATE DRAWN: 5-23-06	DRAWN BY: F.T.M.
REVISED:	SCALE: 1" = 1000'

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

August 15, 2006

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2006 Plan of Development Hawkeye Unit, Duchesne County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2006 within the Hawkeye Unit, Duchesne County, Utah.

API#	WELL NAME	LOCATION
(Proposed PZ Green River)		
43-013-33260	Hawkeye Fed V-23-8-16	Sec 23 T08S R16E 0645 FSL 0676 FEL
		BHL Sec 23 T08S R16E 0000 FSL 1323 FEL
43-013-33261	Hawkeye Fed S-23-8-16	Sec 23 T08S R16E 1852 FSL 1836 FEL
		BHL Sec 23 T08S R16E 1321 FSL 1326 FEL
43-013-33263	Hawkeye Fed L-26-8-16	Sec 26 T08S R16E 1968 FSL 2013 FEL
		BHL Sec 26 T08S R16E 2638 FSL 1323 FEL
43-013-33264	Hawkeye Fed I-26-8-16	Sec 26 T08S R16E 1911 FNL 0668 FEL
		BHL Sec 26 T08S R16E 1324 FNL 1323 FEL
43-013-33275	Hawkeye Fed H-26-8-16	Sec 26 T08S R16E 0644 FNL 1995 FEL
		BHL Sec 26 T08S R16E 1325 FNL 2646 FEL

These wells are part of a 20 acre infill program in the Greater Monument Butte Field. Telephone conversation with Kelly Donohoue, Newfield, indicated that they will apply for exceptions to the locating and siting requirements of the State of Utah (R649-3-2) on a well by well basis. Newfield is currently scheduled to seek relief on a unit basis at the September meeting of the Board of Oil Gas and Mining.

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

NEWFIELD



ROCKY MOUNTAINS

August 8, 2006

Ms. Diana Whitney
State of Utah, Div. of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Re: Directional Drilling R649-3-11
Hawkeye Unit UTU-76331X
Various Wells & Locations (See Attached)
Duchesne County, Utah

Dear Ms. Whitney:

Pursuant to the filing of Newfield Production Company's (hereinafter "NPC") Applications for Permits to Drill dated 07/25/06 (copies enclosed herewith) which concern the wells described on the attached Exhibit, NPC is hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

All of these drillsite locations are located within the boundaries of the Hawkeye Unit UTU-76331X. NPC is permitting these wells as directional wells in order to minimize surface disturbance. By locating the wells at the surface locations described and directionally drilling from these locations, NPC will be able to utilize the existing the existing roads and pipelines in the area.

Furthermore, NPC hereby certifies that NPC is the Hawkeye Unit Operator and all lands within 460 feet of each of the entire directional well bores are within the Hawkeye Unit.

Therefore, based on the above stated information NPC requests that the permits be granted pursuant to R649-3-11. Thank you for your consideration in this matter.

Sincerely,

Newfield Production Company

Rhonda Deimer
Land Associate

Enclosures

RECEIVED

AUG 11 2006

DIV. OF OIL, GAS & MINING

**DIRECTIONAL DRILLING R649-3-11 WELL EXHIBIT
HAWKEYE UNIT UTU-76331X
DUCHESNE COUNTY, UTAH**

Hawkeye Federal S-23-8-16

BLM Lease #s U-34346 (surface & bottomhole)
1852' FSL, 1836' FEL (at surface)
1321' FSL, 1326' FEL (bottomhole)
Section 23-T8S-R16E

Hawkeye Federal V-23-8-16

BLM Lease #s U-34346 (surface & bottomhole)
645' FSL, 676' FEL (at surface)
0' FSL, 1323' FEL (bottomhole)
Section 23-T8S-R16E

Hawkeye Federal F-25-8-16

BLM Lease #s U-34346 (surface & bottomhole)
646' FNL, 646' FWL (at surface)
1323' FNL, 0' FWL (bottomhole)
Section 25-T8S-R16E

Hawkeye Federal I-26-8-16

BLM Lease #s U-73088 (surface & bottomhole)
1911' FNL, 668' FEL (at surface)
1324' FNL, 1323' FEL (bottomhole)
Section 26-T8S-R16E

Hawkeye Federal L-26-8-16

BLM Lease #s U-34346 (surface & bottomhole)
1968' FSL, 2013' FEL (at surface)
2638' FSL, 1323' FEL (bottomhole)
Section 26-T8S-R16E



July 27, 2006

State of Utah
Division of Oil, Gas & Mining
Attn: Diana Whitney
1594 West North Temple - Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Applications for Permit to Drill 20 Acre Infills
Hawkeye Federal S-23-8-16
Hawkeye Federal V-23-8-16
Hawkeye Federal F-25-8-16
Hawkeye Federal I-26-8-16
Hawkeye Federal L-26-8-16

Dear Diana:

Enclosed find APD's on the above referenced wells. The proposed locations are directional wells that will be drilled directionally off of existing well pads. Our Land Department will send you the required Directional Drill Letters. If you have any questions, feel free to give either Shon Mckinnon or myself a call.

Sincerely,

A handwritten signature in black ink that reads "Mandie Crozier".

Mandie Crozier
Regulatory Specialist

mc
enclosures

RECEIVED
JUL 31 2006
DIV. OF OIL, GAS & MINING

**NEWFIELD PRODUCTION COMPANY
HAWKEYE FEDERAL #S-23-8-16
AT SURFACE: NW/SE SECTION 23, T8S, R16E
DUCHESNE COUNTY, UTAH**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. **GEOLOGIC SURFACE FORMATION:**
 Uinta formation of Upper Eocene Age
2. **ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**
 Uinta 0' – 3371'
 Green River 3371'
 Wasatch 6751'
3. **ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**
 Green River Formation 3371' – 6751' - Oil
4. **PROPOSED CASING PROGRAM**
 Please refer to the Monument Butte Field Standard Operation Procedure (SOP).
5. **MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**
 Please refer to the Monument Butte Field SOP. See Exhibit "C".
6. **TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**
 Please refer to the Monument Butte Field SOP.
7. **AUXILIARY SAFETY EQUIPMENT TO BE USED:**
 Please refer to the Monument Butte Field SOP.
8. **TESTING, LOGGING AND CORING PROGRAMS:**
 Please refer to the Monument Butte Field SOP.
9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**
 The anticipated maximum bottom hole pressure is 1800 psi. It is not anticipated that abnormal temperatures will be encountered.
10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**
 Please refer to the Monument Butte Field SOP.

**NEWFIELD PRODUCTION COMPANY
HAWKEYE FEDERAL #S-23-8-16
AT SURFACE: NW/SE SECTION 23, T8S, R16E
DUCHESNE COUNTY, UTAH**

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. EXISTING ROADS

See attached Topographic Map "A"

To reach Newfield Production Company well location site Mon. Butte Federal #S-23-8-16 located in the NW 1/4 SE 1/4 Section 23, T8S, R16E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles ± to the junction of this highway and UT State Hwy 53; proceed southeasterly along Hwy 53 - 8.5 miles ± to it's junction with an existing dirt road to the southwest; proceed southwesterly - 1.0 miles ± to it's junction with the beginning of the access road to the existing Hawkeye 10-23-8-16 well location.

2. PLANNED ACCESS ROAD

There is no proposed access road for this location. The proposed well will be drilled directionally off of the existing Hawkeye 10-23-8-16 well pad. See attached **Topographic Map "B"**.

3. LOCATION OF EXISTING WELLS

Refer to Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

The proposed well will be drilled directionally off of the Hawkeye 10-23-8-16 well pad. There will be a pumping unit and a short flow line added to the tank battery for the proposed Hawkeye Federal S-23-8-16.

Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

5. LOCATION AND TYPE OF WATER SUPPLY

Please refer to the Monument Butte Field SOP. See Exhibit "A".

6. SOURCE OF CONSTRUCTION MATERIALS

The proposed Hawkeye Federal S-23-8-16 will be drilled off of the existing Hawkeye 10-23-8-16 well pad. No additional surface disturbance will be required for this location.

7. METHODS FOR HANDLING WASTE DISPOSAL

Please refer to the Monument Butte Field SOP.

8. ANCILLARY FACILITIES

Please refer to the Monument Butte Field SOP.

9. WELL SITE LAYOUT

See attached Location Layout Diagram.

10. PLANS FOR RESTORATION OF SURFACE

Please refer to the Monument Butte Field SOP.

11. SURFACE OWNERSHIP - Bureau Of Land Management (Proposed location and access roads leading to).

12. OTHER ADDITIONAL INFORMATION

Newfield Production Company requests 1,020' of disturbed area be granted in Lease UTU-34346 to allow for construction of the proposed water lines. It is proposed that the disturbed area will be 50' wide to allow for construction of a buried 3" steel water injection line and a buried 3" poly water return line. **Refer to Topographic Map "C."** For a ROW plan of development, please refer to the Monument Butte Field SOP.

Water Disposal

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

Threatened, Endangered, And Other Sensitive Species

Mountain Plover: If new construction or surface disturbing activities are scheduled to occur between May 1 and June 15, detailed surveys of the area within 0.5 mile of the proposed location and within 300 feet of proposed access routes must be conducted to detect the presence of mountain plovers. All surveys must be conducted in accordance with the survey protocols outlined in the most recent USFWS Survey Protocol. Surveys must be completed prior to initiating new construction or surface disturbing activities. No new construction or surface disturbing activities will be allowed between March 15 and August 15 within a 0.5 mile radius of any documented mountain plover nest site.

Reserve Pit Liner

A 12 mil liner with felt is required. Please refer to the Monument Butte Field SOP.

Location and Reserve Pit Reclamation

Please refer to the Monument Butte Field SOP.

The following seed mixture will be used on the topsoil stockpile, to the recontoured surface of the reserve pit, and for final reclamation: (All poundages are in pure live seed)

Western Wheatgrass	<i>Pascopyrum Smithii</i>	6 lbs/acre
Galletta Grass	<i>Hilaria Jamesii</i>	6 lbs/acre

Details of the On-Site Inspection

The proposed Hawkeye Federal #S-23-8-16 was on-sited on 5/31/06. The following were present: Shon Mckinnon (Newfield Production), Chris Carusona (Bureau of Land Management).

and Nate West (Bureau of Landmanagement). Weather conditions were clear and ground cover was 100% open.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

Name: Shon Mckinnon
Address: Route #3 Box 3630
Myton, UT 84052
Telephone: (435) 646-3721

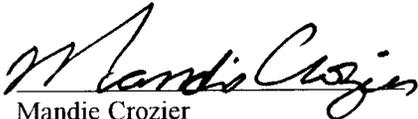
Certification

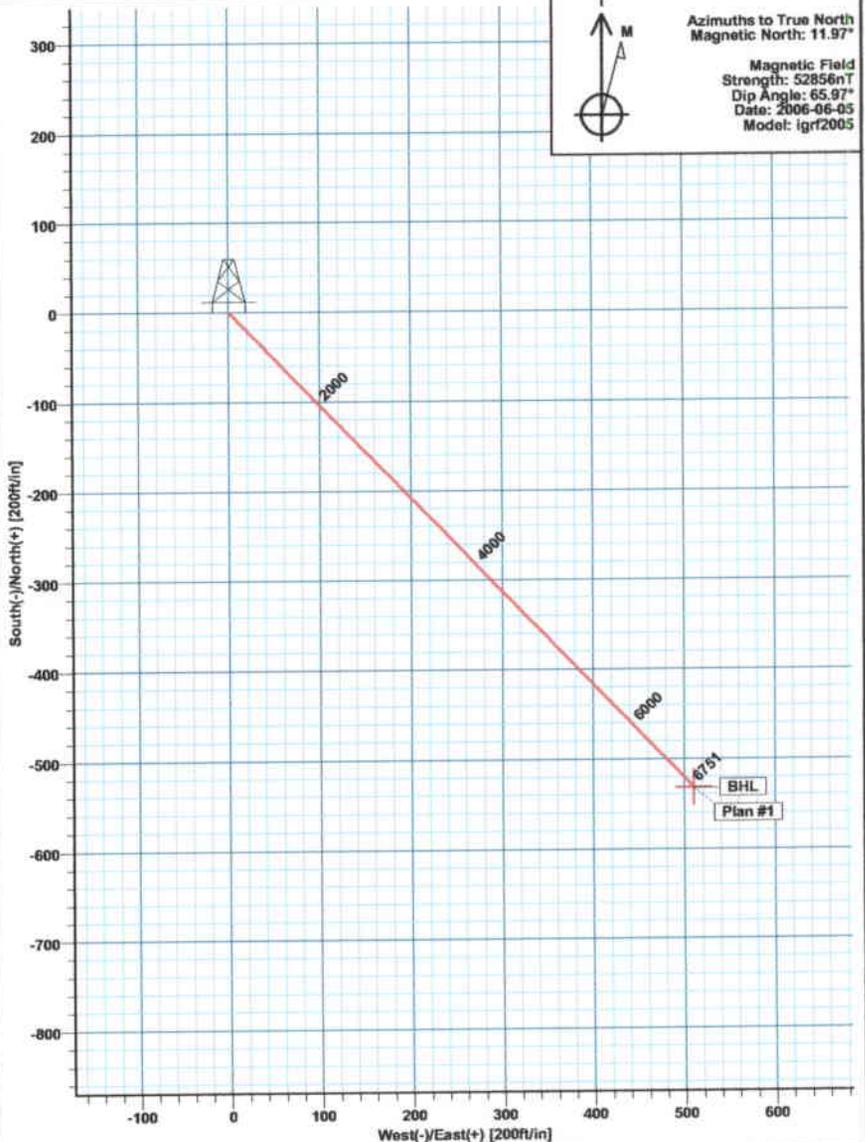
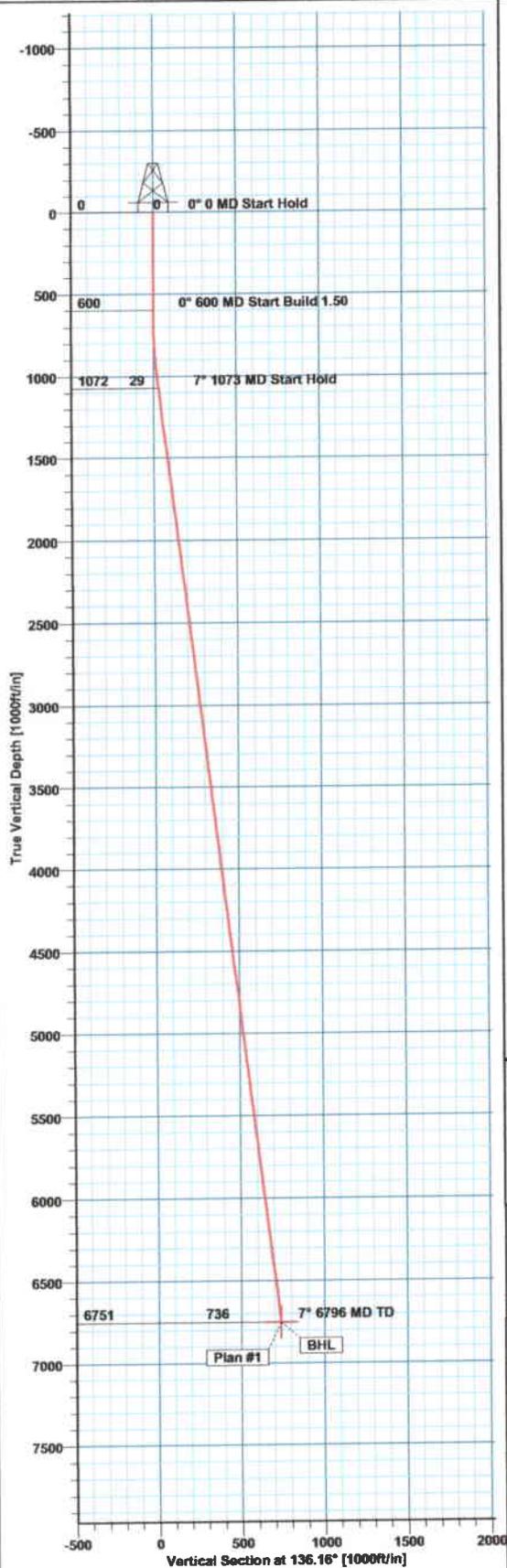
Please be advised that NEWFIELD PRODUCTION COMPANY is considered to be the operator of well #S-23-8-16 NW/SE Section 23, Township 8S, Range 16E: Lease UTU-34346 Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by US Specialty Insurance #B001832.

I hereby certify that the proposed drillsite and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

7/27/06

Date


Mandie Crozier
Regulatory Specialist
Newfield Production Company



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.00	0.00	136.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	600.00	0.00	136.16	600.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1073.58	7.10	136.16	1071.87	-21.10	28.27	1.50	136.16	29.26	
4	6796.05	7.10	136.16	6751.80	-631.00	510.00	0.00	0.00	736.25	BHL

WELL DETAILS							
Name	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
H S-23-8-16	0.00	0.00	7208753.10	2036556.39	40°06'04.480N	110°05'01.580W	N/A

SITE DETAILS

Hawkeye S 32-8-16
Sec. 23 T8S R16E

Site Centre Latitude: 40°06'04.480N
Longitude: 110°05'01.580W

Ground Level: 5469.00
Positional Uncertainty: 0.00
Convergence: 0.91

Plan: Plan #1 (H S-23-8-16/OH)

Created By: Julie Seaman Date: 2006-06-05

FIELD DETAILS

Duchesne County, UT

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: Utah, Central Zone
Magnetic Model: igrf2005

System Datum: Mean Sea Level
Local North: True North



Scientific Drilling International

Planning Report

Company: Newfield Exploration Co. Field: Duchesne County, UT Site: Hawkeye S 32-8-16 Well: H S-23-8-16 Wellpath: OH	Date: 2006-06-05 Co-ordinate(NE) Reference: Well: H S-23-8-16, True North Vertical (TVD) Reference: GL 5469' & RKB 12' 5481.0 Section (VS) Reference: Well (0.00N,0.00E,136.16Azi) Plan: Plan #1
--	---

Field: Duchesne County, UT

Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level	Map Zone: Utah, Central Zone Coordinate System: Well Centre Geomagnetic Model: igrf2005
--	--

Site: Hawkeye S 32-8-16
Sec. 23 T8S R16E

Site Position: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 5469.00 ft	Northing: 7208753.10 ft Easting: 2036556.39 ft	Latitude: 40 6 4.480 N Longitude: 110 5 1.580 W North Reference: True Grid Convergence: 0.91 deg
---	---	---

Well: H S-23-8-16 SHL: 1852' FSL, 1836' FEL Well Position: +N-S 0.00 ft +E-W 0.00 ft Position Uncertainty: 0.00 ft	Slot Name: Northing: 7208753.10 ft Easting: 2036556.39 ft Latitude: 40 6 4.480 N Longitude: 110 5 1.580 W
---	--

Wellpath: OH Current Datum: GL 5469' & RKB 12' Magnetic Data: 2006-06-05 Field Strength: 52856 nT Vertical Section: Depth From (TVD) ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 11.97 deg Mag Dip Angle: 65.97 deg +E/-W Direction deg ft
6751.00 0.00 0.00 136.16	

Plan: Plan #1 Principal: Yes	Date Composed: 2006-06-05 Version: 1 Tied-to: From Surface
---	---

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	136.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	136.16	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1073.08	7.10	136.16	1071.87	-21.10	20.27	1.50	1.50	0.00	136.16	
6796.05	7.10	136.16	6751.00	-531.00	510.00	0.00	0.00	0.00	0.00	BHL

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	136.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	136.16	100.00	0.00	0.00	0.00	0.00	0.00	0.00	136.16
200.00	0.00	136.16	200.00	0.00	0.00	0.00	0.00	0.00	0.00	136.16
300.00	0.00	136.16	300.00	0.00	0.00	0.00	0.00	0.00	0.00	136.16
400.00	0.00	136.16	400.00	0.00	0.00	0.00	0.00	0.00	0.00	136.16
500.00	0.00	136.16	500.00	0.00	0.00	0.00	0.00	0.00	0.00	136.16
600.00	0.00	136.16	600.00	0.00	0.00	0.00	0.00	0.00	0.00	136.16

Section 2 : Start Build 1.50

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
700.00	1.50	136.16	699.99	-0.94	0.91	1.31	1.50	1.50	0.00	0.00
800.00	3.00	136.16	799.91	-3.78	3.63	5.23	1.50	1.50	0.00	0.00
900.00	4.50	136.16	899.69	-8.49	8.16	11.77	1.50	1.50	0.00	0.00
1000.00	6.00	136.16	999.27	-15.09	14.49	20.92	1.50	1.50	0.00	0.00
1073.08	7.10	136.16	1071.87	-21.10	20.27	29.26	1.50	1.50	0.00	0.00



Scientific Drilling International Planning Report

Company: Newfield Exploration Co.
Field: Duchesne County, UT
Site: Hawkeye S 32-8-16
Well: H S-23-8-16
Wellpath: OH

Date: 2006-06-05 **Time:** 16:31:12
Co-ordinate(NE) Reference: Well: H S-23-8-16, True North
Vertical (TVD) Reference: GL 5469' & RKB 12' 5481.0
Section (VS) Reference: Well (0.00N,0.00E,136.16Azi)
Plan: Plan #1

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1100.00	7.10	136.16	1098.59	-23.50	22.57	32.58	0.00	0.00	0.00	0.00
1200.00	7.10	136.16	1197.82	-32.41	31.13	44.94	0.00	0.00	0.00	0.00
1300.00	7.10	136.16	1297.05	-41.32	39.69	57.29	0.00	0.00	0.00	0.00
1400.00	7.10	136.16	1396.29	-50.23	48.24	69.64	0.00	0.00	0.00	0.00
1500.00	7.10	136.16	1495.52	-59.14	56.80	82.00	0.00	0.00	0.00	0.00
1600.00	7.10	136.16	1594.76	-68.05	65.36	94.35	0.00	0.00	0.00	0.00
1700.00	7.10	136.16	1693.99	-76.96	73.91	106.71	0.00	0.00	0.00	0.00
1800.00	7.10	136.16	1793.22	-85.87	82.47	119.06	0.00	0.00	0.00	0.00
1900.00	7.10	136.16	1892.46	-94.78	91.03	131.41	0.00	0.00	0.00	0.00
2000.00	7.10	136.16	1991.69	-103.69	99.59	143.77	0.00	0.00	0.00	0.00
2100.00	7.10	136.16	2090.93	-112.60	108.14	156.12	0.00	0.00	0.00	0.00
2200.00	7.10	136.16	2190.16	-121.51	116.70	168.47	0.00	0.00	0.00	0.00
2300.00	7.10	136.16	2289.39	-130.42	125.26	180.83	0.00	0.00	0.00	0.00
2400.00	7.10	136.16	2388.63	-139.33	133.82	193.18	0.00	0.00	0.00	0.00
2500.00	7.10	136.16	2487.86	-148.24	142.37	205.53	0.00	0.00	0.00	0.00
2600.00	7.10	136.16	2587.10	-157.15	150.93	217.89	0.00	0.00	0.00	0.00
2700.00	7.10	136.16	2686.33	-166.06	159.49	230.24	0.00	0.00	0.00	0.00
2800.00	7.10	136.16	2785.56	-174.97	168.05	242.59	0.00	0.00	0.00	0.00
2900.00	7.10	136.16	2884.80	-183.87	176.60	254.95	0.00	0.00	0.00	0.00
3000.00	7.10	136.16	2984.03	-192.78	185.16	267.30	0.00	0.00	0.00	0.00
3100.00	7.10	136.16	3083.27	-201.69	193.72	279.66	0.00	0.00	0.00	0.00
3200.00	7.10	136.16	3182.50	-210.60	202.27	292.01	0.00	0.00	0.00	0.00
3300.00	7.10	136.16	3281.73	-219.51	210.83	304.36	0.00	0.00	0.00	0.00
3400.00	7.10	136.16	3380.97	-228.42	219.39	316.72	0.00	0.00	0.00	0.00
3500.00	7.10	136.16	3480.20	-237.33	227.95	329.07	0.00	0.00	0.00	0.00
3600.00	7.10	136.16	3579.44	-246.24	236.50	341.42	0.00	0.00	0.00	0.00
3700.00	7.10	136.16	3678.67	-255.15	245.06	353.78	0.00	0.00	0.00	0.00
3800.00	7.10	136.16	3777.90	-264.06	253.62	366.13	0.00	0.00	0.00	0.00
3900.00	7.10	136.16	3877.14	-272.97	262.18	378.48	0.00	0.00	0.00	0.00
4000.00	7.10	136.16	3976.37	-281.88	270.73	390.84	0.00	0.00	0.00	0.00
4100.00	7.10	136.16	4075.61	-290.79	279.29	403.19	0.00	0.00	0.00	0.00
4200.00	7.10	136.16	4174.84	-299.70	287.85	415.54	0.00	0.00	0.00	0.00
4300.00	7.10	136.16	4274.07	-308.61	296.41	427.90	0.00	0.00	0.00	0.00
4400.00	7.10	136.16	4373.31	-317.52	304.96	440.25	0.00	0.00	0.00	0.00
4500.00	7.10	136.16	4472.54	-326.43	313.52	452.60	0.00	0.00	0.00	0.00
4600.00	7.10	136.16	4571.78	-335.34	322.08	464.96	0.00	0.00	0.00	0.00
4700.00	7.10	136.16	4671.01	-344.25	330.63	477.31	0.00	0.00	0.00	0.00
4800.00	7.10	136.16	4770.24	-353.16	339.19	489.67	0.00	0.00	0.00	0.00
4900.00	7.10	136.16	4869.48	-362.07	347.75	502.02	0.00	0.00	0.00	0.00
5000.00	7.10	136.16	4968.71	-370.98	356.31	514.37	0.00	0.00	0.00	0.00
5100.00	7.10	136.16	5067.95	-379.89	364.86	526.73	0.00	0.00	0.00	0.00
5200.00	7.10	136.16	5167.18	-388.80	373.42	539.08	0.00	0.00	0.00	0.00
5300.00	7.10	136.16	5266.41	-397.71	381.98	551.43	0.00	0.00	0.00	0.00
5400.00	7.10	136.16	5365.65	-406.62	390.54	563.79	0.00	0.00	0.00	0.00
5500.00	7.10	136.16	5464.88	-415.53	399.09	576.14	0.00	0.00	0.00	0.00
5600.00	7.10	136.16	5564.12	-424.44	407.65	588.49	0.00	0.00	0.00	0.00
5700.00	7.10	136.16	5663.35	-433.35	416.21	600.85	0.00	0.00	0.00	0.00
5800.00	7.10	136.16	5762.58	-442.26	424.77	613.20	0.00	0.00	0.00	0.00
5900.00	7.10	136.16	5861.82	-451.17	433.32	625.55	0.00	0.00	0.00	0.00
6000.00	7.10	136.16	5961.05	-460.07	441.88	637.91	0.00	0.00	0.00	0.00
6100.00	7.10	136.16	6060.29	-468.98	450.44	650.26	0.00	0.00	0.00	0.00
6200.00	7.10	136.16	6159.52	-477.89	458.99	662.62	0.00	0.00	0.00	0.00
6300.00	7.10	136.16	6258.75	-486.80	467.55	674.97	0.00	0.00	0.00	0.00
6400.00	7.10	136.16	6357.99	-495.71	476.11	687.32	0.00	0.00	0.00	0.00
6500.00	7.10	136.16	6457.22	-504.62	484.67	699.68	0.00	0.00	0.00	0.00
6600.00	7.10	136.16	6556.46	-513.53	493.22	712.03	0.00	0.00	0.00	0.00
6700.00	7.10	136.16	6655.69	-522.44	501.78	724.38	0.00	0.00	0.00	0.00
6796.05	7.10	136.16	6751.00	-531.00	510.00	736.25	0.00	0.00	0.00	0.00



Scientific Drilling International Planning Report

Company: Newfield Exploration Co.
Field: Duchesne County, UT
Site: Hawkeye S 32-8-16
Well: H S-23-8-16
Wellpath: OH

Date: 2006-06-05 **Time:** 16:31:12
Co-ordinate(NE) Reference: Well: H S-23-8-16, True North
Vertical (TVD) Reference: GL 5469' & RKB 12' 5481.0
Section (VS) Reference: Well (0.00N,0.00E,136.16Azi)
Plan: Plan #1

Page: 3

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	136.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
100.00	0.00	136.16	100.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
200.00	0.00	136.16	200.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
300.00	0.00	136.16	300.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
400.00	0.00	136.16	400.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
500.00	0.00	136.16	500.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
600.00	0.00	136.16	600.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
700.00	1.50	136.16	699.99	-0.94	0.91	1.31	1.50	1.50	0.00	MWD
800.00	3.00	136.16	799.91	-3.78	3.63	5.23	1.50	1.50	0.00	MWD
900.00	4.50	136.16	899.69	-8.49	8.16	11.77	1.50	1.50	0.00	MWD
1000.00	6.00	136.16	999.27	-15.09	14.49	20.92	1.50	1.50	0.00	MWD
1073.08	7.10	136.16	1071.87	-21.10	20.27	29.26	1.50	1.50	0.00	MWD
1100.00	7.10	136.16	1098.59	-23.50	22.57	32.58	0.00	0.00	0.00	MWD
1200.00	7.10	136.16	1197.82	-32.41	31.13	44.94	0.00	0.00	0.00	MWD
1300.00	7.10	136.16	1297.05	-41.32	39.69	57.29	0.00	0.00	0.00	MWD
1400.00	7.10	136.16	1396.29	-50.23	48.24	69.64	0.00	0.00	0.00	MWD
1500.00	7.10	136.16	1495.52	-59.14	56.80	82.00	0.00	0.00	0.00	MWD
1600.00	7.10	136.16	1594.76	-68.05	65.36	94.35	0.00	0.00	0.00	MWD
1700.00	7.10	136.16	1693.99	-76.96	73.91	106.71	0.00	0.00	0.00	MWD
1800.00	7.10	136.16	1793.22	-85.87	82.47	119.06	0.00	0.00	0.00	MWD
1900.00	7.10	136.16	1892.46	-94.78	91.03	131.41	0.00	0.00	0.00	MWD
2000.00	7.10	136.16	1991.69	-103.69	99.59	143.77	0.00	0.00	0.00	MWD
2100.00	7.10	136.16	2090.93	-112.60	108.14	156.12	0.00	0.00	0.00	MWD
2200.00	7.10	136.16	2190.16	-121.51	116.70	168.47	0.00	0.00	0.00	MWD
2300.00	7.10	136.16	2289.39	-130.42	125.26	180.83	0.00	0.00	0.00	MWD
2400.00	7.10	136.16	2388.63	-139.33	133.82	193.18	0.00	0.00	0.00	MWD
2500.00	7.10	136.16	2487.86	-148.24	142.37	205.53	0.00	0.00	0.00	MWD
2600.00	7.10	136.16	2587.10	-157.15	150.93	217.89	0.00	0.00	0.00	MWD
2700.00	7.10	136.16	2686.33	-166.06	159.49	230.24	0.00	0.00	0.00	MWD
2800.00	7.10	136.16	2785.56	-174.97	168.05	242.59	0.00	0.00	0.00	MWD
2900.00	7.10	136.16	2884.80	-183.87	176.60	254.95	0.00	0.00	0.00	MWD
3000.00	7.10	136.16	2984.03	-192.78	185.16	267.30	0.00	0.00	0.00	MWD
3100.00	7.10	136.16	3083.27	-201.69	193.72	279.66	0.00	0.00	0.00	MWD
3200.00	7.10	136.16	3182.50	-210.60	202.27	292.01	0.00	0.00	0.00	MWD
3300.00	7.10	136.16	3281.73	-219.51	210.83	304.36	0.00	0.00	0.00	MWD
3400.00	7.10	136.16	3380.97	-228.42	219.39	316.72	0.00	0.00	0.00	MWD
3500.00	7.10	136.16	3480.20	-237.33	227.95	329.07	0.00	0.00	0.00	MWD
3600.00	7.10	136.16	3579.44	-246.24	236.50	341.42	0.00	0.00	0.00	MWD
3700.00	7.10	136.16	3678.67	-255.15	245.06	353.78	0.00	0.00	0.00	MWD
3800.00	7.10	136.16	3777.90	-264.06	253.62	366.13	0.00	0.00	0.00	MWD
3900.00	7.10	136.16	3877.14	-272.97	262.18	378.48	0.00	0.00	0.00	MWD
4000.00	7.10	136.16	3976.37	-281.88	270.73	390.84	0.00	0.00	0.00	MWD
4100.00	7.10	136.16	4075.61	-290.79	279.29	403.19	0.00	0.00	0.00	MWD
4200.00	7.10	136.16	4174.84	-299.70	287.85	415.54	0.00	0.00	0.00	MWD
4300.00	7.10	136.16	4274.07	-308.61	296.41	427.90	0.00	0.00	0.00	MWD
4400.00	7.10	136.16	4373.31	-317.52	304.96	440.25	0.00	0.00	0.00	MWD
4500.00	7.10	136.16	4472.54	-326.43	313.52	452.60	0.00	0.00	0.00	MWD
4600.00	7.10	136.16	4571.78	-335.34	322.08	464.96	0.00	0.00	0.00	MWD
4700.00	7.10	136.16	4671.01	-344.25	330.63	477.31	0.00	0.00	0.00	MWD
4800.00	7.10	136.16	4770.24	-353.16	339.19	489.67	0.00	0.00	0.00	MWD
4900.00	7.10	136.16	4869.48	-362.07	347.75	502.02	0.00	0.00	0.00	MWD
5000.00	7.10	136.16	4968.71	-370.98	356.31	514.37	0.00	0.00	0.00	MWD
5100.00	7.10	136.16	5067.95	-379.89	364.86	526.73	0.00	0.00	0.00	MWD
5200.00	7.10	136.16	5167.18	-388.80	373.42	539.08	0.00	0.00	0.00	MWD



Scientific Drilling International Planning Report

Company: Newfield Exploration Co.
Field: Duchesne County, UT
Site: Hawkeye S 32-8-16
Well: H S-23-8-16
Wellpath: OH

Date: 2006-06-05 **Time:** 16:31:12 **Page:** 4
Co-ordinate(NE) Reference: Well: H S-23-8-16, True North
Vertical (TVD) Reference: GL 5469' & RKB 12' 5481.0
Section (VS) Reference: Well (0.00N,0.00E,136.16Azi)
Plan: Plan #1

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5300.00	7.10	136.16	5266.41	-397.71	381.98	551.43	0.00	0.00	0.00	MWD
5400.00	7.10	136.16	5365.65	-406.62	390.54	563.79	0.00	0.00	0.00	MWD
5500.00	7.10	136.16	5464.88	-415.53	399.09	576.14	0.00	0.00	0.00	MWD
5600.00	7.10	136.16	5564.12	-424.44	407.65	588.49	0.00	0.00	0.00	MWD
5700.00	7.10	136.16	5663.35	-433.35	416.21	600.85	0.00	0.00	0.00	MWD
5800.00	7.10	136.16	5762.58	-442.26	424.77	613.20	0.00	0.00	0.00	MWD
5900.00	7.10	136.16	5861.82	-451.17	433.32	625.55	0.00	0.00	0.00	MWD
6000.00	7.10	136.16	5961.05	-460.07	441.88	637.91	0.00	0.00	0.00	MWD
6100.00	7.10	136.16	6060.29	-468.98	450.44	650.26	0.00	0.00	0.00	MWD
6200.00	7.10	136.16	6159.52	-477.89	458.99	662.62	0.00	0.00	0.00	MWD
6300.00	7.10	136.16	6258.75	-486.80	467.55	674.97	0.00	0.00	0.00	MWD
6400.00	7.10	136.16	6357.99	-495.71	476.11	687.32	0.00	0.00	0.00	MWD
6500.00	7.10	136.16	6457.22	-504.62	484.67	699.68	0.00	0.00	0.00	MWD
6600.00	7.10	136.16	6556.46	-513.53	493.22	712.03	0.00	0.00	0.00	MWD
6700.00	7.10	136.16	6655.69	-522.44	501.78	724.38	0.00	0.00	0.00	MWD
6796.05	7.10	136.16	6751.00	-531.00	510.00	736.25	0.00	0.00	0.00	BHL

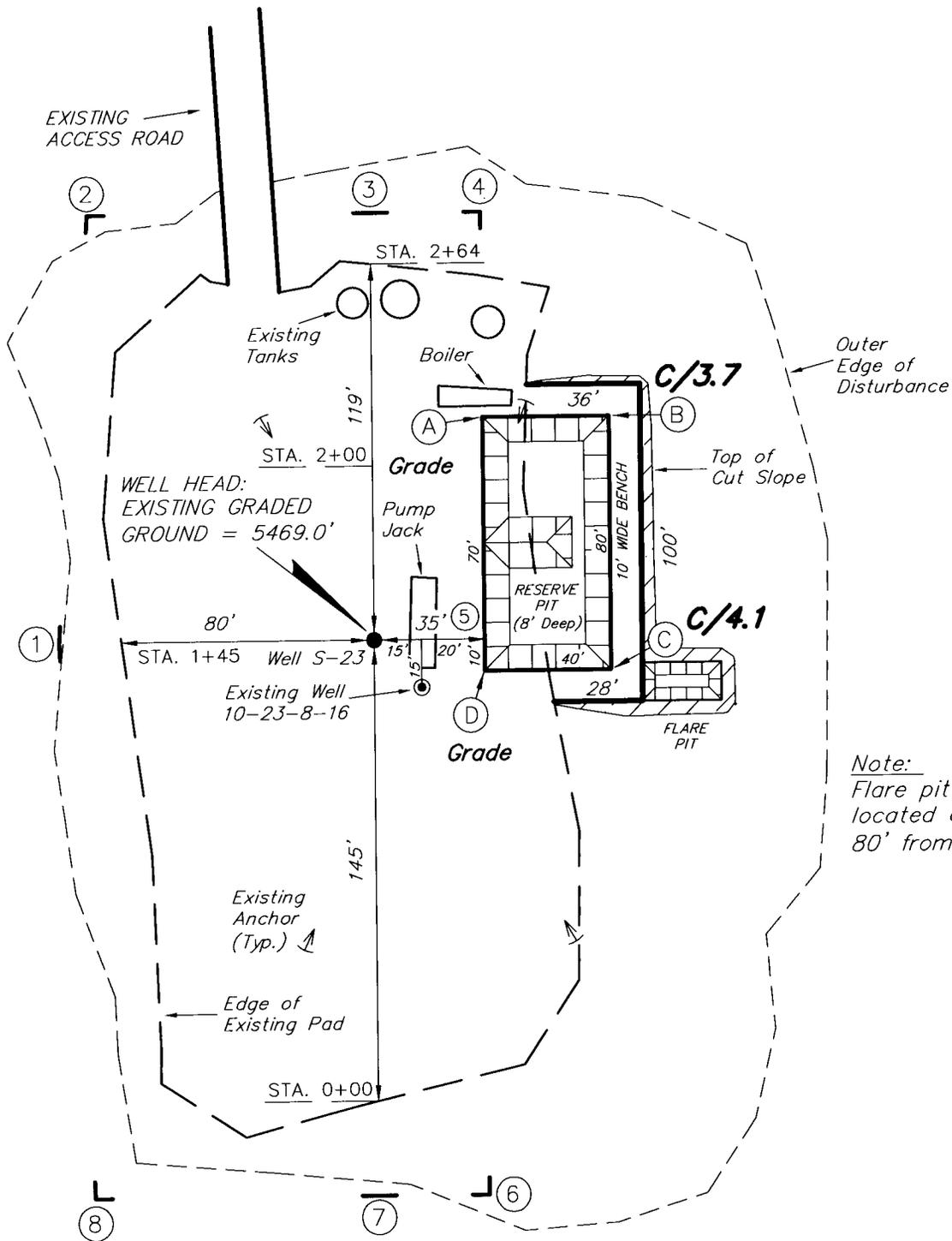
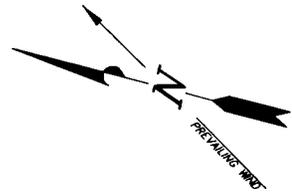
Targets

Name	Description		TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →			← Longitude →				
	Dip.	Dir.						Deg	Min	Sec	Deg	Min	Sec		
BHL			6751.00	-531.00	510.00	7208230.24	2037074.74	40	5	59.232	N	110	4	55.017	W
-Plan hit target															

NEWFIELD PRODUCTION COMPANY

HAWKEYE 10-23-8-16 (S-23)

Section 23, T8S, R16E, S.L.B.&M.



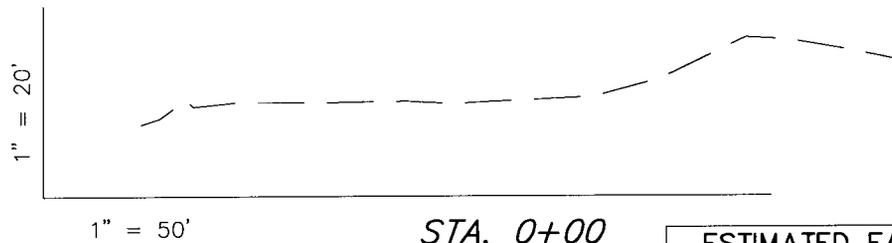
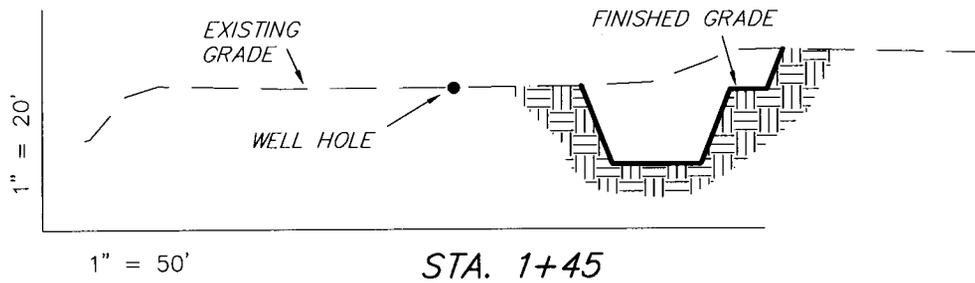
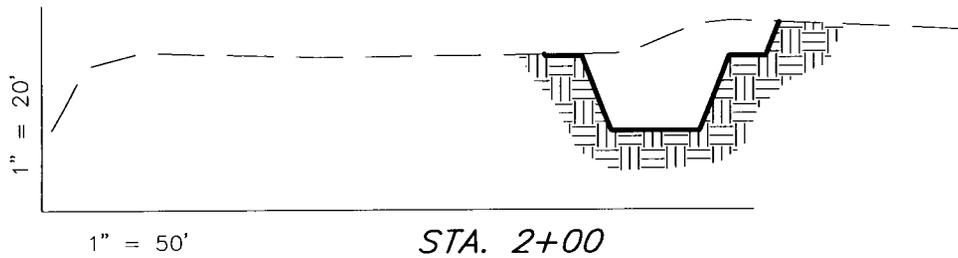
Note:
Flare pit is to be located at least 80' from well head.

SURVEYED BY: D.P.	SCALE: 1" = 50'	<p>Tri State Land Surveying, Inc. 180 NORTH VERNAL AVE. VERNAL, UTAH 84078</p>	(435) 781-2501
DRAWN BY: F.T.M.	DATE: 05-22-06		

NEWFIELD PRODUCTION COMPANY

CROSS SECTIONS

HAWKEYE 10-23-8-16 (S-23)



ESTIMATED EARTHWORK QUANTITIES
(No Shrink or swell adjustments have been used)
(Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	510	0	Topsoil is not included in Pad Cut	510
PIT	640	0		640
TOTALS	1,150	0	N/A	1,150

NOTE:
UNLESS OTHERWISE NOTED
CUT SLOPES ARE AT 1:1
FILL SLOPES ARE AT 1.5:1

SURVEYED BY: D.P.

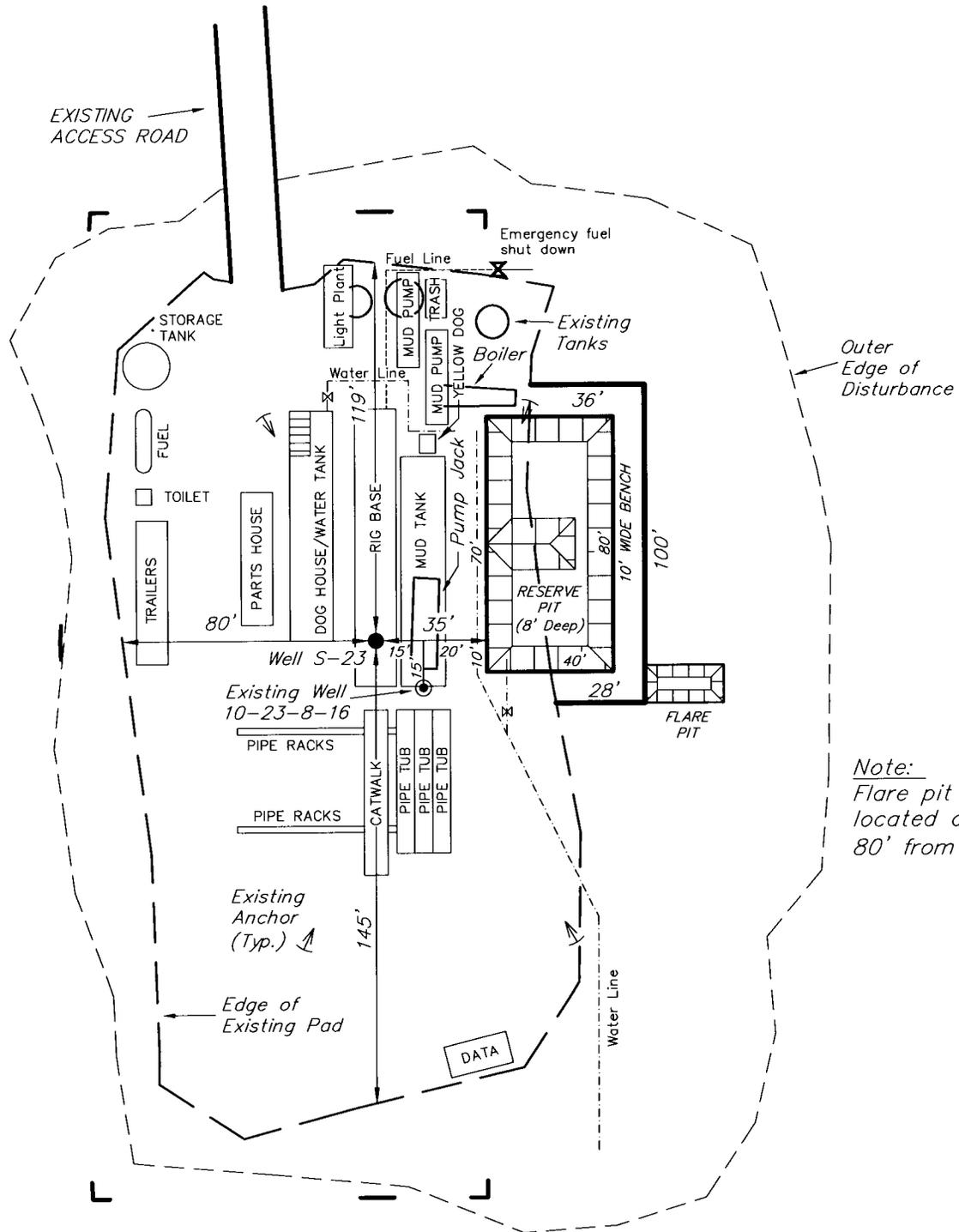
SCALE: 1" = 50'

DRAWN BY: F.T.M.

DATE: 05-22-06

Tri State (435) 781-2501
Land Surveying, Inc.
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

NEWFIELD PRODUCTION COMPANY
TYPICAL RIG LAYOUT
HAWKEYE 10-23-8-16 (S-23)



Note:
 Flare pit is to be located at least 80' from well head.

SURVEYED BY: D.P.

SCALE: 1" = 50'

DRAWN BY: F.T.M.

DATE: 05-22-06

Tri State (435) 781-2501
 Land Surveying, Inc.
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

Newfield Production Company Proposed Site Facility Diagram

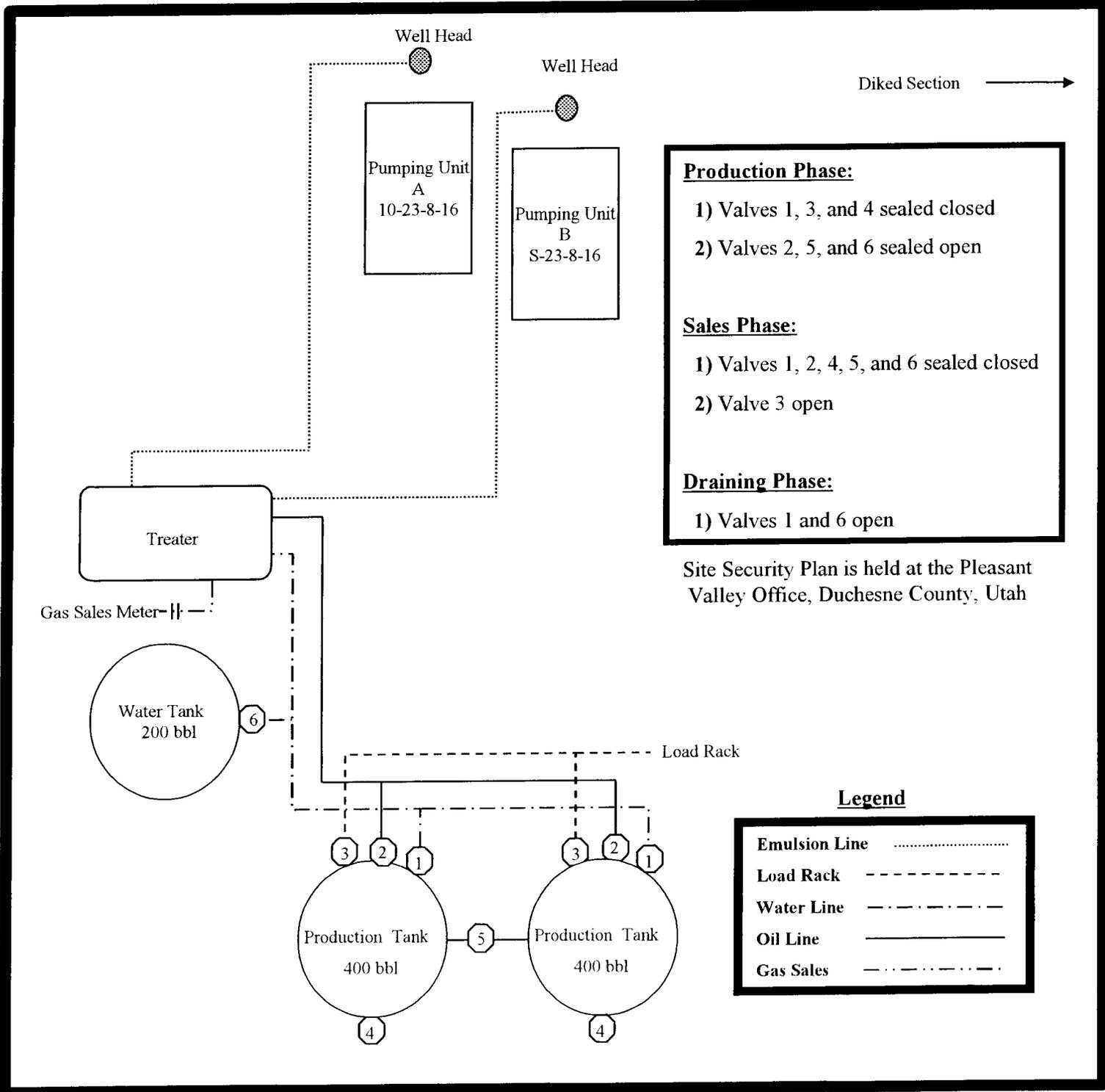
Hawkeye Federal S-23-8-16

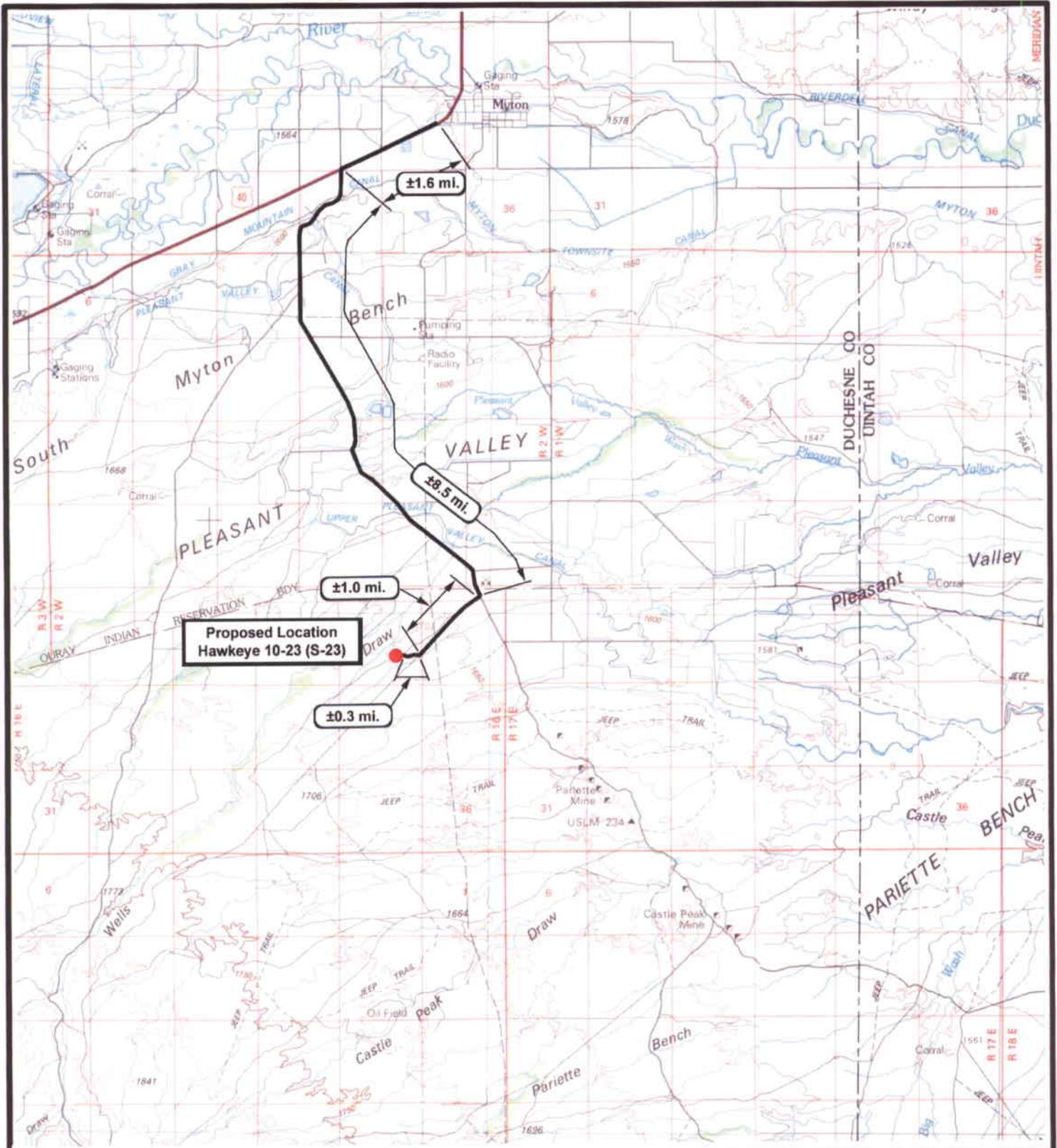
From the 10-23-8-16 Location

NW/SE Sec. 23 T8S, 16E

Duchesne County, Utah

UTU-34346





**Proposed Location
Hawkeye 10-23 (S-23)**

NEWFIELD
Exploration Company

Hawkeye 10-23-8-16 (S-23)
SEC. 23, T8S, R16E, S.L.B.&M.



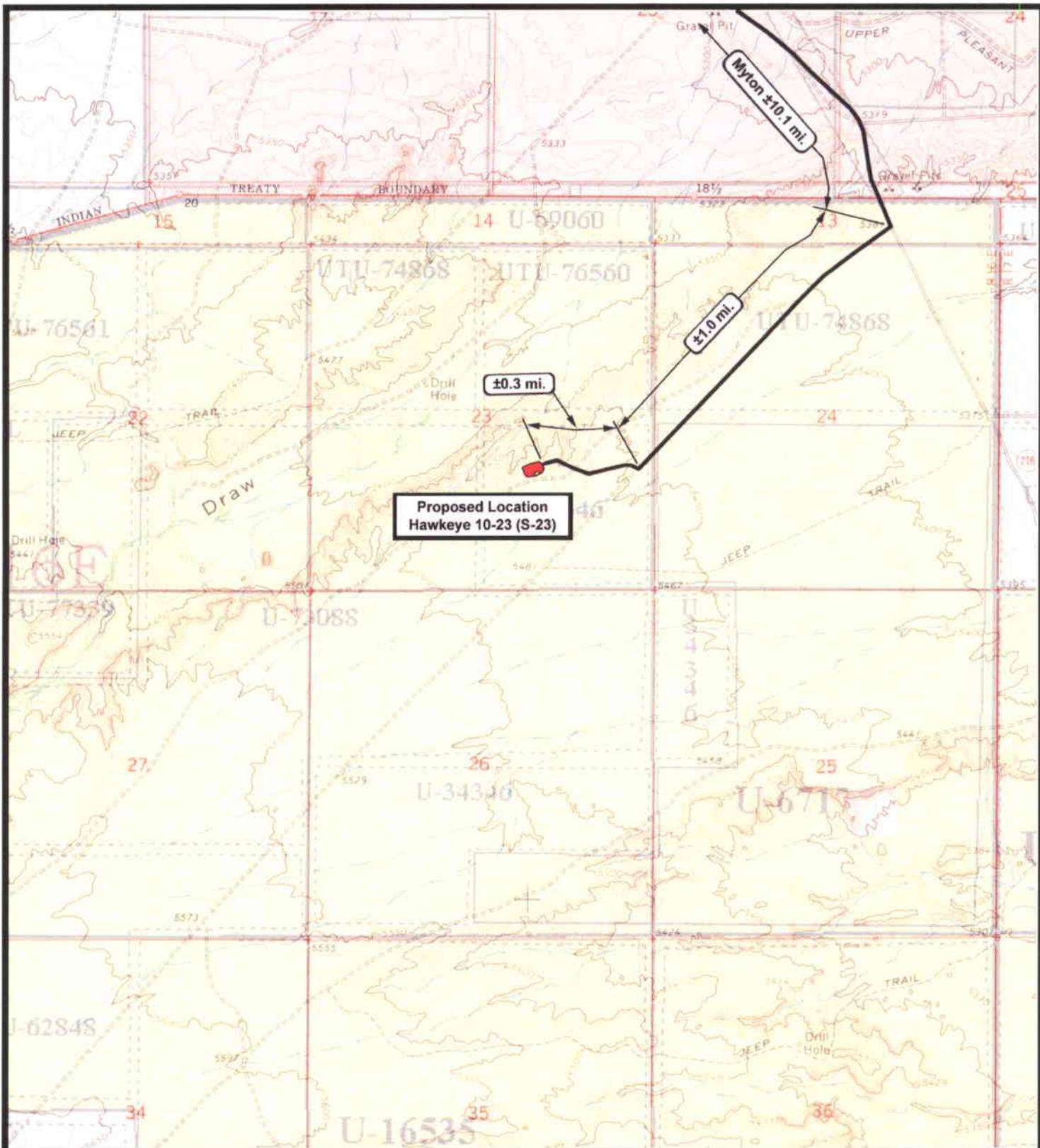
Tri-State
Land Surveying Inc.
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1 = 100,000
DRAWN BY: mw
DATE: 05-24-2006

Legend

Existing Road

TOPOGRAPHIC MAP
"A"



**Proposed Location
Hawkeye 10-23 (S-23)**

Myton ±10.1 mi

±1.0 mi

±0.3 mi



NEWFIELD
Exploration Company

**Hawkeye 10-23-8-16 (S-23)
SEC. 23, T8S, R16E, S.L.B.&M.**



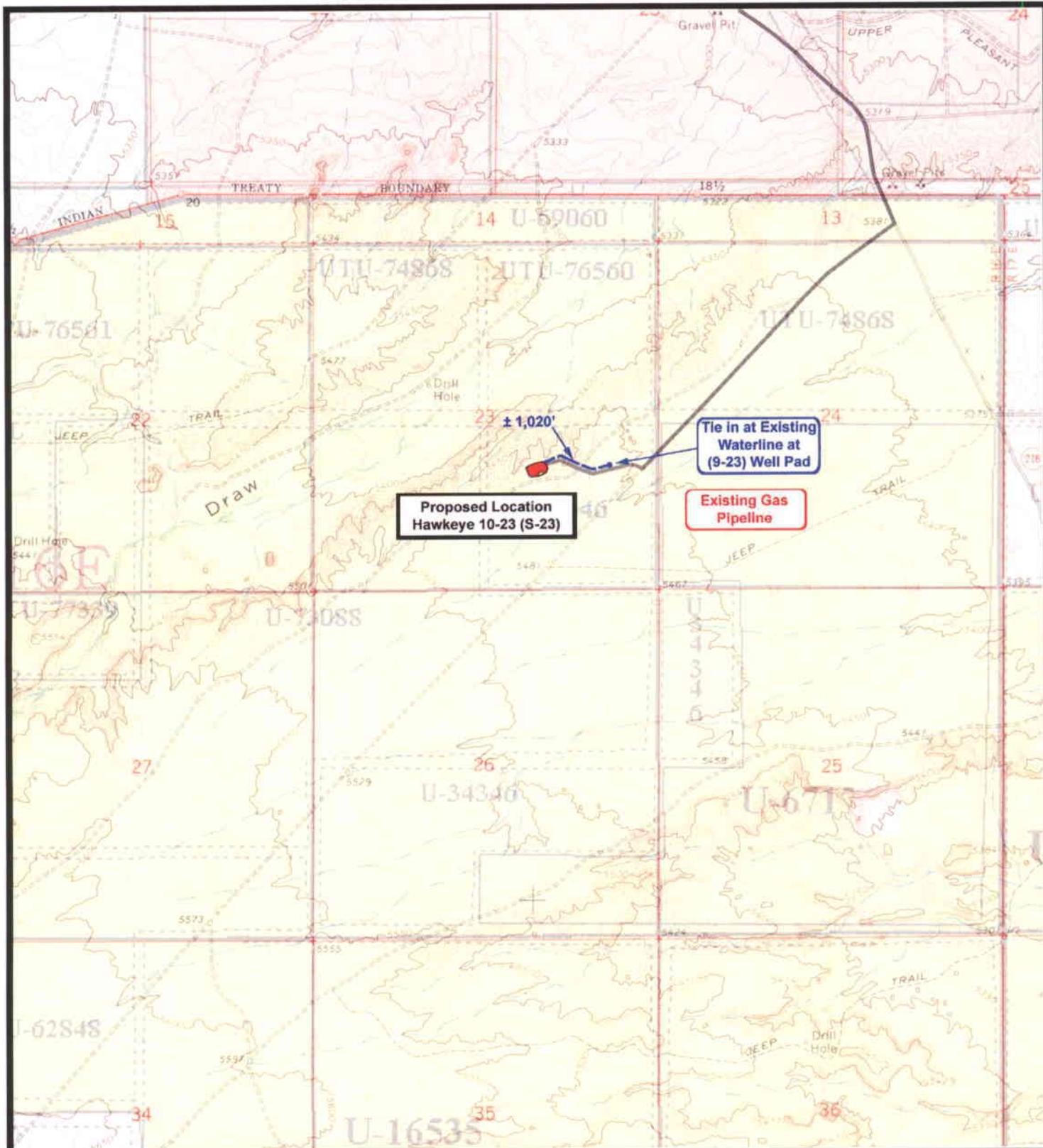

Tri-State
Land Surveying Inc.
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'
DRAWN BY: mw
DATE: 05-24-2006

Legend

 Existing Road

TOPOGRAPHIC MAP
"B"



**Proposed Location
Hawkeye 10-23 (S-23)**

**Tie in at Existing
Waterline at
(9-23) Well Pad**

**Existing Gas
Pipeline**

NEWFIELD
Exploration Company

**Hawkeye 10-23-8-16 (S-23)
SEC. 23, T8S, R16E, S.L.B.&M.**



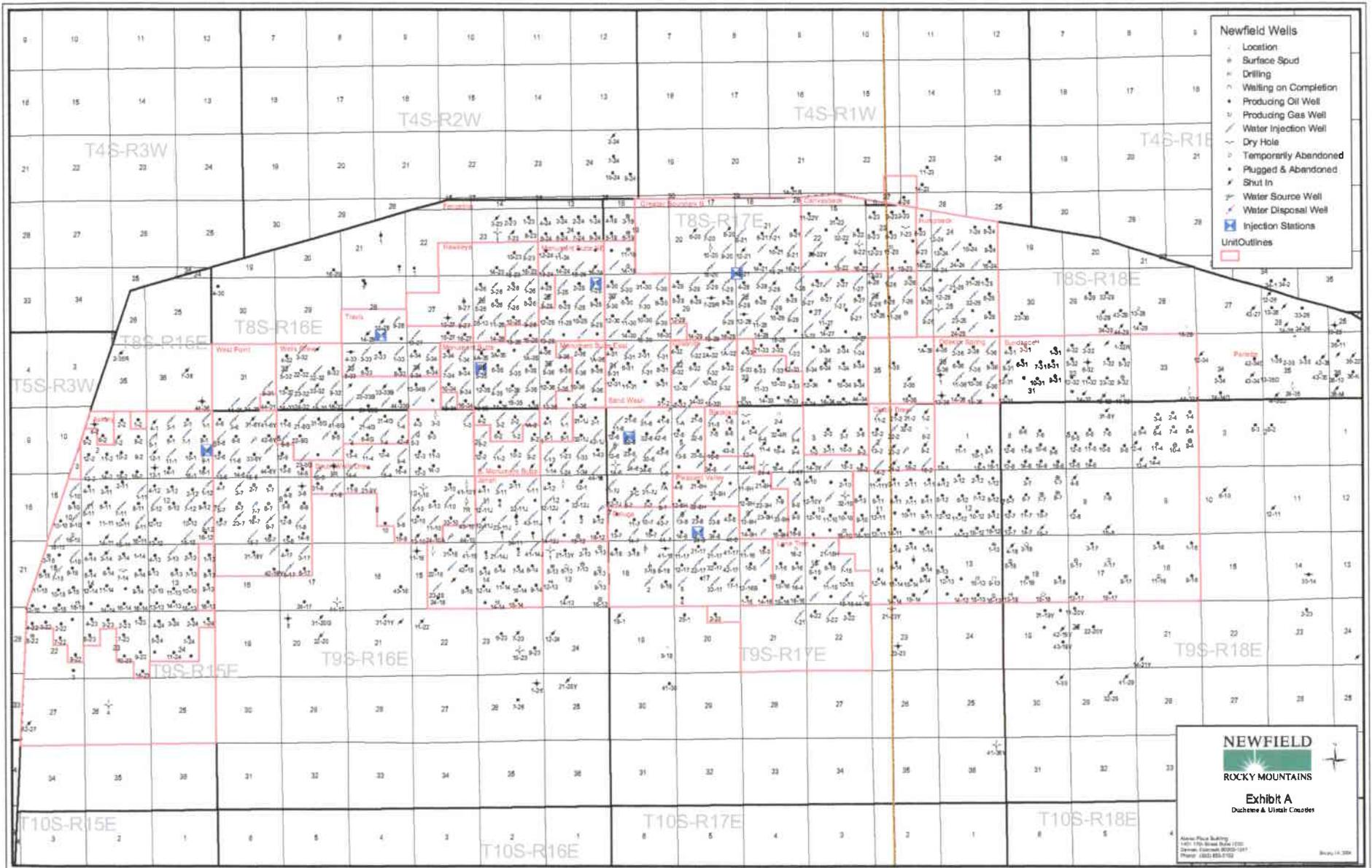
*Tri-State
Land Surveying Inc.*
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078

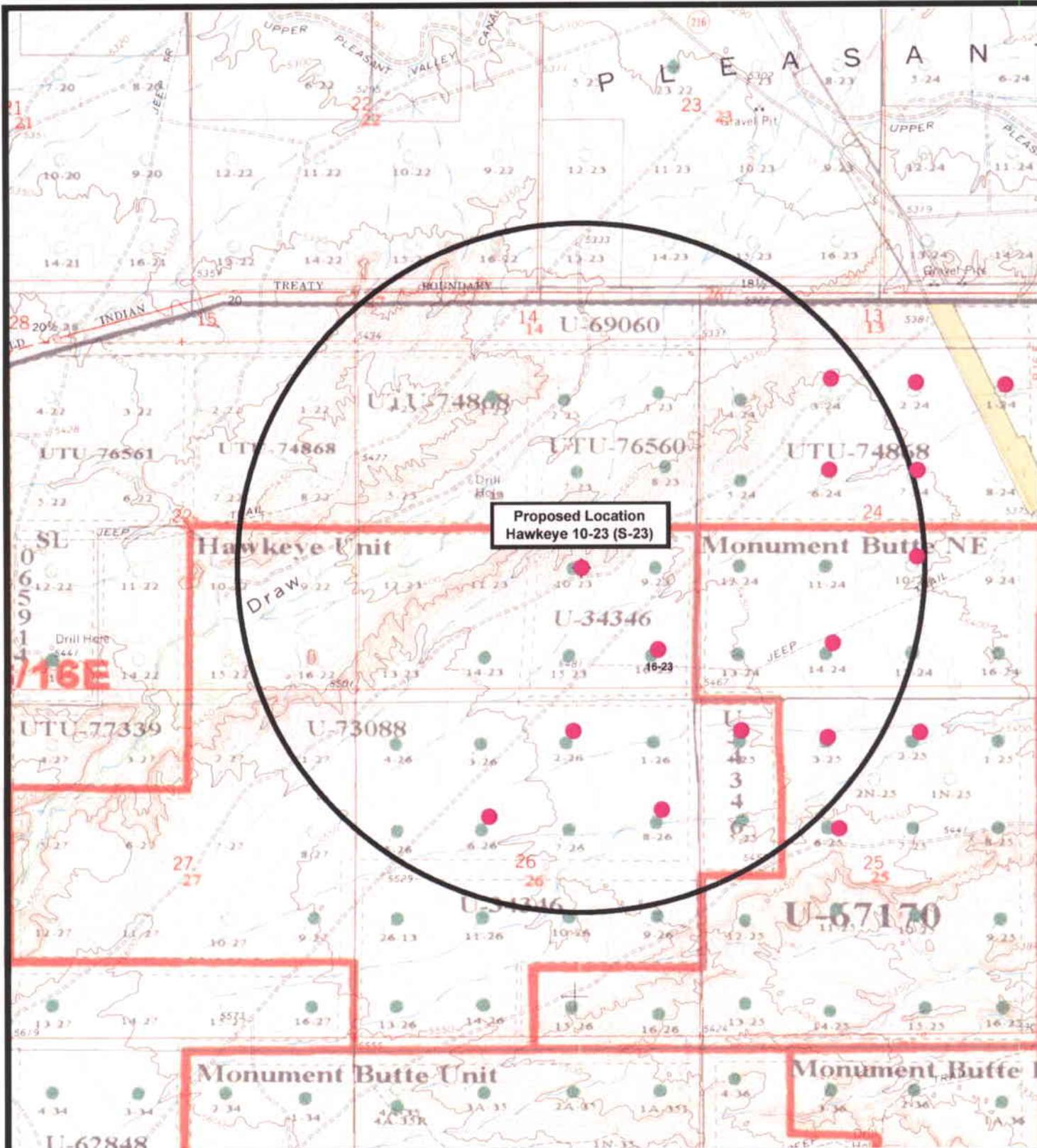
SCALE: 1" = 2,000'
DRAWN BY: mw
DATE: 05-24-2006

Legend

- Roads
- Proposed Water Line

TOPOGRAPHIC MAP
"C"





Proposed Location
Hawkeye 10-23 (S-23)



NEWFIELD
Exploration Company

Hawkeye 10-23-8-16 (S-23)
SEC. 23, T8S, R16E, S.L.B.&M.



Tri-State
Land Surveying Inc.
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'
DRAWN BY: mw
DATE: 05-24-2006

Legend

- Location
- One-Mile Radius

Exhibit "B"

2-M SYSTEM

Blowout Prevention Equipment Systems

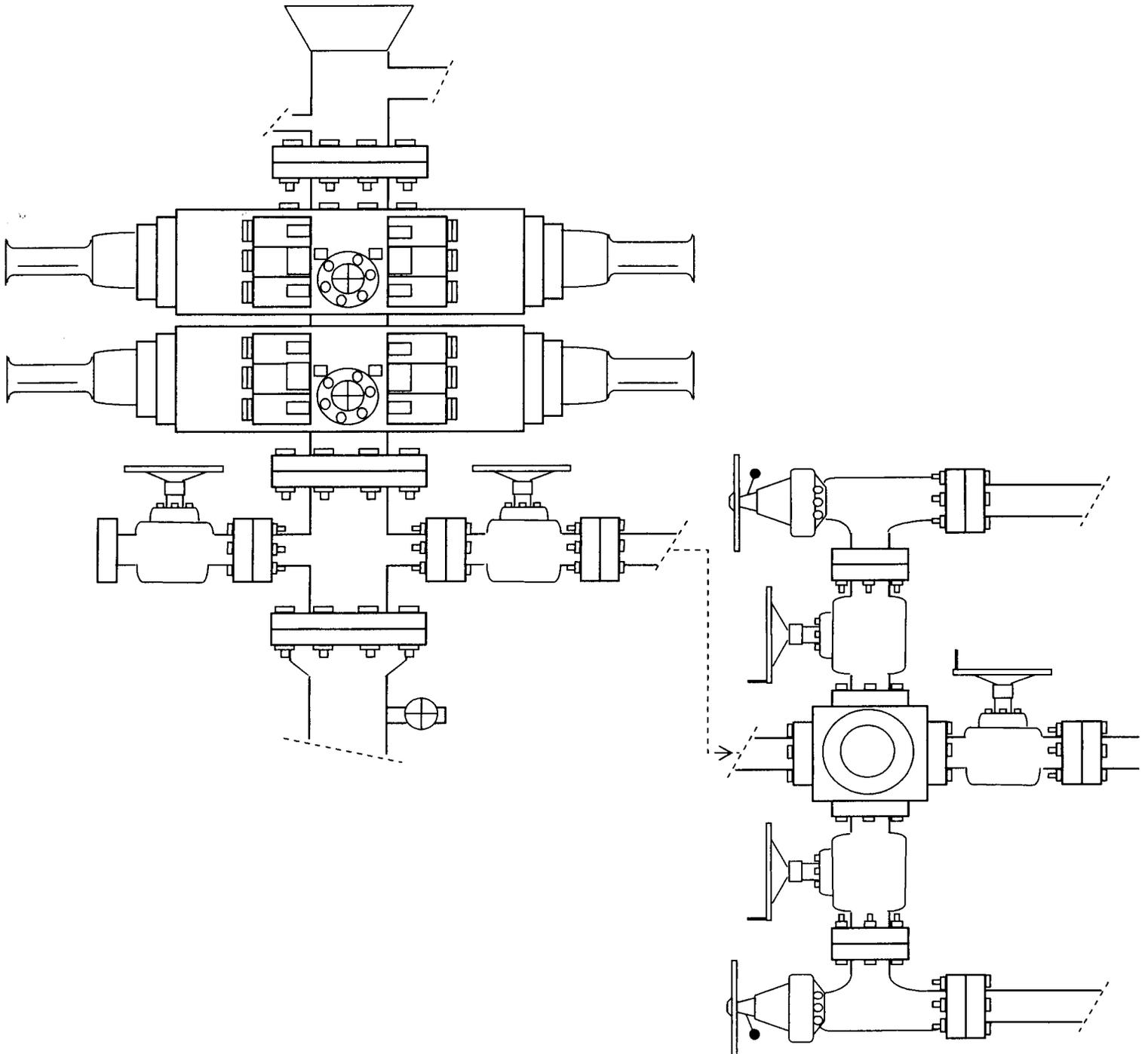


EXHIBIT C

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 07/31/2006

API NO. ASSIGNED: 43-013-33261

WELL NAME: HAWKEYE FED S-23-8-16
 OPERATOR: NEWFIELD PRODUCTION (N2695)
 CONTACT: MANDIE CROZIER

PHONE NUMBER: 435-646-3721

PROPOSED LOCATION:

NWSE 23 080S 160E
 SURFACE: 1852 FSL 1836 FEL
 BOTTOM: 1321 FSL 1326 FEL
 COUNTY: DUCHESNE
 LATITUDE: 40.10129 LONGITUDE: -110.0830
 UTM SURF EASTINGS: 578164 NORTHINGS: 4439192
 FIELD NAME: MONUMENT BUTTE (105)

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

LEASE TYPE: 1 - Federal
 LEASE NUMBER: UTU-34346
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: GRRV
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

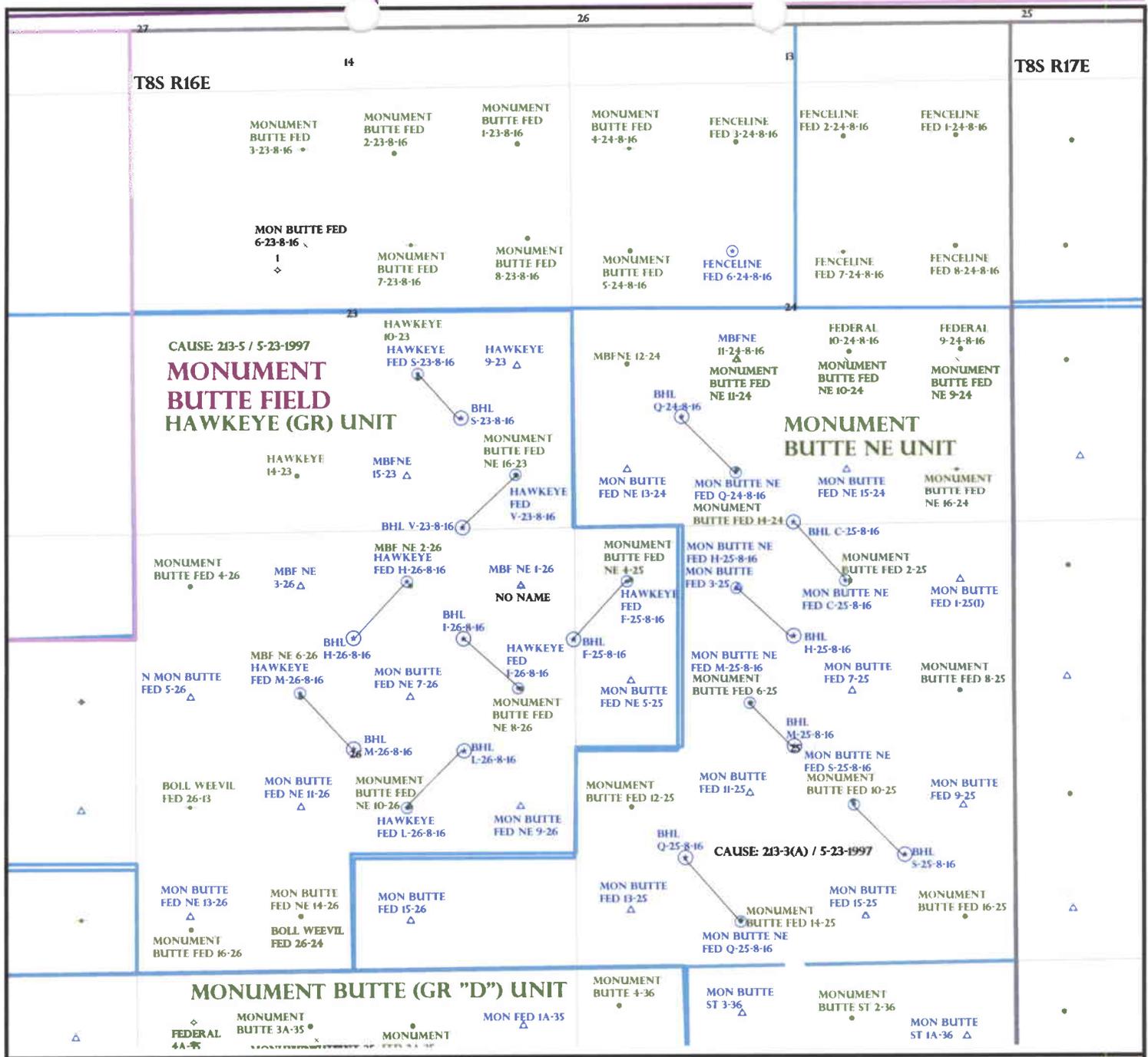
- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]
(No. UTB000192)
- N Potash (Y/N)
- N Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit
(No. MUNICIPAL)
- N RDCC Review (Y/N)
(Date: _____)
- N/A Fee Surf Agreement (Y/N)
- N/A Intent to Commingle (Y/N)

LOCATION AND SITING:

- R649-2-3.
- Unit: HAWKEYE (GREEN RIVER)
- R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit
Board Cause No: 2135
Eff Date: 5-23-1947
Siting: Suspension of Siting
- R649-3-11. Directional Drill

COMMENTS: See Separate file

STIPULATIONS: 1 - Federal Approval



OPERATOR: NEWFIELD PROD CO (N2695)

SEC: 23,26 T.8S R. 16E

FIELD: MONUMENT BUTTE (105)

COUNTY: DUCHESNE

CAUSE: 213-5 / 5-23-1997

- 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



PREPARED BY: DIANA WHITNEY
DATE: 15-AUGUST-2006



State of Utah

**Department of
Natural Resources**

MICHAEL R. STYLER
Executive Director

**Division of
Oil, Gas & Mining**

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

August 17, 2006

Newfield Production Company
Rt. #3, Box 3630
Myton, UT 84052

Re: Hawkeye Federal S-23-8-16 Well, Surface Location 1852' FSL, 1836' FEL, NW SE, Sec. 23, T. 8 South, R. 16 East, Bottom Location 1321' FSL, 1326' FEL, NW SE, Sec. 23, T. 8 South, R. 16 East, Duchesne 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 43-013-33261.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Duchesne County Assessor
Bureau of Land Management, Vernal District Office

Operator: Newfield Production Company
Well Name & Number Hawkeye Federal S-23-8-16
API Number: 43-013-33261
Lease: UTU-34346

Surface Location: NW SE **Sec.** 23 **T.** 8 South **R.** 16 East
Bottom Location: NW SE **Sec.** 23 **T.** 8 South **R.** 16 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 Dan Jarvis at (801) 538-5338

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. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

RECEIVED

JUL 31 2006

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-34346
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Newfield Production Company		7. If Unit or CA Agreement, Name and No. Hawkeye
3a. Address Route #3 Box 3630, Myton UT 84052		8. Lease Name and Well No. Hawkeye Federal S-23-8-16
3b. Phone No. (include area code) (435) 646-3721		9. API Well No. 43-013-33061
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NW/SE 1852' FSL 1836' FEL At proposed prod. zone NW/SE 1321' FSL 1326' FEL		10. Field and Pool, or Exploratory Monument Butte
14. Distance in miles and direction from nearest town or post office* Approximatley 11.4 miles southwest of Myton, Utah		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 23, T8S R16E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1321' f/lease, 1326' f/unit	16. No. of Acres in lease 480.00	17. Spacing Unit dedicated to this well 20 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1033'	19. Proposed Depth 6751'	20. BLM/BIA Bond No. on file UTB000192
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5469' GL	22. Approximate date work will start* 4th Quarter 2006	23. Estimated duration Approximately seven (7) days from spud to rig release.
24. Attachments		

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

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Mandie Crozier	Date 7/25/06
Title Regulatory Specialist		
Approved by (Signature) 	Name (Printed/Typed) Jenny Kenicka	Date 1-19-2007
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the 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 reverse)

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

RECEIVED

JAN 30 2007

DIV. OF OIL, GAS & MINING

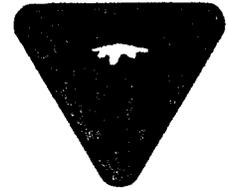
WDOB
06JM0548A
NOTICE OF APPROVAL

No NOS Posted 07/21-08/31/06
CONDITIONS OF APPROVAL ATTACHED



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East VERNAL, UT 84078 (435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Newfield Production Co. Location: NWSE, Sec. 23, T8S, R16E
Well No: Hawkeye Federal S-23-8-16 Lease No: UTU-34346
API No: 43-013-33261 Agreement: Hawkeye Unit

Petroleum Engineer:	Matt Baker	Office: 435-781-4490	Cell: 435-828-4470
Petroleum Engineer:	Michael Lee	Office: 435-781-4432	Cell: 435-828-7875
Petroleum Engineer:	Jim Ashley	Office: 435-781-4470	Cell: 435-828-7874
Supervisory Petroleum Technician:	Jamie Sparger	Office: 435-781-4502	Cell: 435-828-3913
Environmental Scientist:	Paul Buhler	Office: 435-781-4475	Cell: 435-828-4029
Environmental Scientist:	Karl Wright	Office: 435-781-4484	
Natural Resource Specialist:	Holly Villa	Office: 435-781-4404	
Natural Resource Specialist:	Melissa Hawk	Office: 435-781-4476	
After Hours Contact Number:	435-781-4513	Fax: 435-781-4410	

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a one-year period. An additional year extension may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

- Location Construction - Forty-Eight (48) hours prior to construction of location and access roads.
(Notify Natural Resource Specialist)
- Location Completion - Prior to moving on the drilling rig.
(Notify Natural Resource Specialist)
- Spud Notice - Twenty-Four (24) hours prior to spudding the well.
(Notify Petroleum Engineer)
- Casing String & Cementing - Twenty-Four (24) hours prior to running casing and cementing all casing strings.
(Notify Supervisory Petroleum Technician)
- BOP & Related Equipment Tests - Twenty-Four (24) hours prior to initiating pressure tests.
(Notify Supervisory Petroleum Technician)
- First Production Notice - Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.
(Notify Petroleum Engineer)

***SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)***

SITE SPECIFIC CONDITIONS OF APPROVAL

1. Wildlife stipulations:

Mountain Plover timing stipulation. No use shall occur from May 1 through June 15. If construction is required during this period, Bureau biologists shall be notified approximately 1 month prior to the start of construction. Prior to construction, a mountain plover survey will need to be conducted according to FWS standards.

A timing restriction is imposed for construction and drilling, including completion, from April 1 through August 15 in order to protect nesting burrowing owls. If construction is required during this period, Bureau biologist shall be notified approximately 1 month prior to the start of construction.

1. As agreed during the onsite inspection, mufflers will be installed on pump jacks.
2. Pipelines will be buried at all major drainage crossings.
3. Low-water crossings will be appropriately constructed to avoid sedimentation of drainageways and other water resources.
4. A 12 mil liner with felt will be installed at reserve pit.
5. If paleontologic or cultural materials are uncovered during construction, the operator shall immediately stop work that might further disturb or move such materials and contact the Authorized Officer (AO) within 48 hours. A determination will be made by the AO as to necessary mitigation for the discovered paleontologic/cultural material.
6. If Uinta Basin hookless cactus or other special status plants are found, construction will cease and the AO will be notified to determine the appropriate mitigation.
7. The interim seed mix for this location shall be:

Western wheatgrass (<i>Agropyron smithii</i>):	6 lbs/acre
Galleta grass (<i>Hilaria jamesii</i>):	6lbs/acre
<ul style="list-style-type: none">▪ All pounds are in pure live seed.▪ Rates are set for drillseeding; double the rate if broadcasting.▪ Reseeding may be required if initial seeding is not successful.	
8. The operator will be responsible for treatment and control of invasive and noxious weeds.
9. The topsoil from the reserve pit shall be stripped and piled separately near the reserve pit. When the reserve pit is closed, it shall be recontoured and the topsoil respread, and the area shall be seeded in the same manner as the location topsoil.
10. Once the location is plugged and abandoned, it shall be recontoured to natural contours, topsoil respread where appropriate, and the entire location seeded with a seed mix recommended by the AO (preferably of native origin). Seeding should take place by broadcasting the seed and walking it into the soil with a dozer immediately after the dirt work is completed.
11. The authorized officer may prohibit surface disturbing activities during severe winter conditions to minimize watershed damage. This limitation does not apply to operation and maintenance of producing wells.

12. The authorized officer may prohibit surface disturbing activities during wet or muddy conditions to minimize watershed damage. This limitation does not apply to operation and maintenance of producing wells.

GENERAL SURFACE CONDITIONS OF APPROVAL

1. Operator shall notify any active gilsonite mining operation within 2 miles of the location 48 hours prior to any blasting during construction for this well.

DOWNHOLE CONDITIONS OF APPROVAL

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

SITE SPECIFIC CONDITONS OF APPROVAL

1. Production casing cement shall be brought up and into the surface.

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

1. There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well. Any changes in operation must have prior approval from the BLM, Vernal Field Office Petroleum Engineers.
2. The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
3. **Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.**
4. Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

No aggressive/fresh hard-banded drill pipe shall be used within casing.

Cement baskets shall not be run on surface casing.

The lessee/operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled and analyzed (a copy of the analyses to be submitted to the BLM Field Office in Vernal, Utah).

All oil and gas shows shall be adequately tested for commercial possibilities, reported, and protected.

The lessee/operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

5. All shows of fresh water and minerals shall be reported and protected. A sample shall be taken of any water flows and a water analysis furnished the BLM, Vernal Field Office. All oil and gas shows shall be adequately tested for commercial possibilities, reported, and protected.
6. No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM, Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM, Vernal Field Office shall be obtained and notification given before resumption of operations.
7. Chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
8. Any change in the program shall be approved by the BLM, Vernal Field Office. "Sundry Notices and Reports on Wells" (Form BLM 3160-5) shall be filed for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Emergency approval may be obtained orally, but such approval does not waive the written report requirement. Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan pursuant to Onshore Oil & Gas Order No. 1 of 43 CFR 3164.1 and prior approval by the BLM, Vernal Field Office.

In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

9. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 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 run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the

BLM, Vernal Field Office.

10. A cement bond log (CBL) will be run from the production casing shoe to the top of the cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- 11. Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
12. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease shall have prior written approval from the BLM, Vernal Field Office.
13. All measurement points shall be identified as point of sales or allocation for royalty determination prior to the installation of facilities.
14. Oil and gas meters shall be calibrated in place prior to any deliveries. The Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM, Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement.
15. A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM, Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
16. This APD is approved subject to the requirement that, should the well be successfully completed for production, the BLM, Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - a. Operator name, address, and telephone number.
 - b. Well name and number.
 - c. Well location ($\frac{1}{4}$ $\frac{1}{4}$, Sec., Twn, Rng, and P.M.).
 - d. Date well was placed in a producing status (date of first production for which royalty will be paid).
 - e. The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - f. The Federal or Indian lease prefix and number on which the well is

located; otherwise the non-Federal or non-Indian land category, i.e., State or private.

- g. Unit agreement and / or participating area name and number, if applicable.
 - h. Communitization agreement number, if applicable.
17. Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from Field Office Petroleum Engineers.
 18. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production
 19. Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
 20. Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: NEWFIELD PRODUCTION COMPANY

Well Name: HAWKEYE FED S-23-8-16

Api No: 43-013-33261 Lease Type: FEDERAL

Section 23 Township 08S Range 16E County DUCHESNE

Drilling Contractor ROSS DRILLING RIG # 24

SPUDDED:

Date 03/02/07

Time 3:30 PM

How DRY

Drilling will Commence: _____

Reported by DON BASTIAN

Telephone # (435) 823-6012

Date 03/02/07 Signed CHD

STATE OF UTAH
 DIVISION OF OIL, GAS AND MINING
 ENTITY ACTION FORM - FORM 6

OPERATOR: NEWFIELD PRODUCTION COMPANY
 ADDRESS: RT. 3 BOX 3630
 MYTON, UT 84062

OPERATOR ACCT. NO. N2695

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QD	SC	TP	RG	COUNTY		
B	99999	12187	43-013-33261	HAWKEYE FEDERAL S-23-8-16	NW/SE	23	8S	18E	DUCHESNE	3/2/2007	3/12/07
WELL 1 COMMENTS: D GRUV BML = CSE											
B	99999	12187	43-013-33260	HAWKEYE FEDERAL V-23-8-16	SE/SE	23	8S	16E	DUCHESNE	3/7/2007	3/12/07
D GRUV											
A	99999	15971	43-013-33022A	FEDERAL 5-20-9-17	SW/NW	20	9S	17E	DUCHESNE	3/1/2007	3/12/07
GRUV 33224											
A	99999	15972	43-013-33193	FEDERAL 7-19-9-17	SW/NE	19	9S	17E	DUCHESNE	3/3/2007	3/12/07
GRUV											
A	99999	15973	43-013-33194	FEDERAL 8-19-9-17	SE/NE	19	9S	17E	DUCHESNE	3/5/2007	3/12/07
WELL 5 COMMENTS: GRUV											
A	99999	15974	43-047-36282	FEDERAL 11-20-8-18	NE/SW	20	8S	18E	UINTAH	3/6/2007	3/12/07
WELL 1 COMMENTS: GRUV											

ACTION CODES (See instructions on back of form)
 A - entity for new well (single well only)
 B - to existing entity (group or unit well)
 C - one existing entity to another existing entity
 D - two one existing entity to a new entity
 E - explain in comments section

NOTE: Use COMMENT section to explain why each Action Code was selected.

RECEIVED
 MAR 07 2007

Lana Nebeker
 Signature
 LANA NEBEKER
 Production Analyst
 Title
 March 7, 2007
 Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. HAWKEYE FEDERAL S-23-8-16
2. Name of Operator NEWFIELD PRODUCTION COMPANY		6. If Indian, Allottee or Tribe Name.
3a. Address Route 3 Box 3630 Myton, UT 84052	3b. Phone (include are code) 435.646.3721	7. If Unit or CA/Agreement, Name and/or HAWKEYE UNIT
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1852 FSL 1836 FEL NWSE Section 23 T8S R16E		8. Well Name and No. HAWKEYE FEDERAL S-23-8-16
		9. API Well No. 4301333261
		10. Field and Pool, or Exploratory Area MONUMENT BUTTE
		11. County or Parish, State DUCHESNE, UT

12. CHECK APPROPRIATE BOX(ES) TO INIDICATE NATURE OF NOTICE, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production(Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Spud Notice _____
	<input type="checkbox"/> Convert to	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	_____

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 3/2/07 MIRU NDSI NS # 1. Spud well @ 9:00 AM. Drill 310' of 12 1/4" hole with air mist. TIH W/ 7 Jt's 8 5/8" J-55 24 # csgn. Set @ 322.07 KB On 3/7/07 cement with 160 sks of class "G" w/ 2% CaCL2 + 1/4# sk Cello- Flake Mixed @ 15.8 ppg > 1.17 cfl/sk yeild. Returned 3 bbls cement to pit. WOC.

I hereby certify that the foregoing is true and correct (Printed/ Typed) Alvin Nielsen	Title Drilling Foreman
Signature 	Date 03/07/2007

Approved by _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice 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.	Office _____	

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 and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

RECEIVED

MAR 09 2007

DIV. OF OIL, GAS & MINING

NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

8 5/8 CASING SET AT 322.07

LAST CASING 8 5/8" set @ 322.07
 DATUM 12' KB
 DATUM TO CUT OFF CASING _____
 DATUM TO BRADENHEAD FLANGE _____
 TD DRILLER 325' LOGGER _____
 HOLE SIZE 12 1/4

OPERATOR Newfield Production Company
 WELL Federal S-23-8-16
 FIELD/PROSPECT Monument Butte
 CONTRACTOR & RIG # Ross Rig # 24

LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		Shoe Joint 44.81'					
		WHI - 92 csg head			8rd	A	0.95
7	8 5/8"	Maverick ST&C csg	24#	J-55	8rd	A	310.22
		GUIDE shoe			8rd	A	0.9
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING			312.07
TOTAL LENGTH OF STRING		312.07	7	LESS CUT OFF PIECE			2
LESS NON CSG. ITEMS		1.85		PLUS DATUM TO T/CUT OFF CSG			12
PLUS FULL JTS. LEFT OUT		0		CASING SET DEPTH			322.07
TOTAL		310.22	7	} COMPARE			
TOTAL CSG. DEL. (W/O THRDS)		310.22	7				
TIMING		1ST STAGE					
BEGIN RUN CSG.	Spud	3/2/2007	3:30 PM	GOOD CIRC THRU JOB <u>YES</u>			
CSG. IN HOLE		3/6/2007	1:30 PM	Bbls CMT CIRC TO SURFACE <u>3</u>			
BEGIN CIRC		3/7/2007	7:02 AM	RECIPROCATED PIPE FOR <u>N/A</u>			
BEGIN PUMP CMT		3/7/2007	7:16 AM				
BEGIN DSPL. CMT		3/7/2007	7:30 AM	BUMPED PLUG TO <u>575</u> PSI			
PLUG DOWN		3/7/2007	7:36 AM				
CEMENT USED		CEMENT COMPANY- B. J.					
STAGE	# SX	CEMENT TYPE & ADDITIVES					
1	160	Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield					
CENTRALIZER & SCRATCHER PLACEMENT		SHOW MAKE & SPACING					
Centralizers - Middle first, top second & third for 3							

COMPANY REPRESENTATIVE Alvin Nielse DATE 3/7/2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
USA UTU-34346

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or
HAWKEYE UNIT

8. Well Name and No.
HAWKEYE FEDERAL S-23-8-16

9. API Well No.
4301333261

10. Field and Pool, or Exploratory Area
MONUMENT BUTTE

11. County or Parish, State
DUCHESNE, UT

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630
Myton, UT 84052

3b. Phone (include are code)
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1852 FSL 1836 FEL
NWSE Section 23 T8S R16E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production(Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Weekly Status Report _____
	<input type="checkbox"/> Convert to	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 3/10/07 MIRU NDSI Rig # 2. Set all equipment. Pressure test Kelly, TIW, Choke manifold, & Bop's to 2,000 psi. Test 8.625 csgn to 1,500 psi. Vernal BLM field, & Roosevelt DOGM office was notified of test. PU BHA and tag cement @ 277'. Drill out cement & shoe. Drill a 7.875 hole with fresh water to a depth of 6,821'. Lay down drill string & BHA. Open hole log w/ Dig/SP/GR log's TD to surface. PU & TIH with Guide shoe, shoe jt, float collar, 155 jt's of 5.5 J-55, 15.5# csgn. Set @ 6791' / KB. Cement with 350 sks cement mixed @ 11.0 ppg & 3.43 yld. Then 480 sks cement mixed @ 14.4 ppg & 1.24 yld. With 31 bbls cement returned to pit. Nipple down Bop's. Drop slips @80,000 #'s tension. Release rig 6:00 AM 3/18/07.

I hereby certify that the foregoing is true and correct (Printed/ Typed)
Alvin Nielser
Signature 

Title
Drilling Foreman

Date
03/21/2007

Approved by _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice 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.

Office _____

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 and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

RECEIVED

MAR 22 2007

NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

_____ **5 1/2"** CASING SET AT _____ **6791.96**

LAST CASING 8 5/8" SET # 322.07'
 DATUM 12' KB
 DATUM TO CUT OFF CASING 12'
 DATUM TO BRADENHEAD FLANGE _____
 TD DRILLER 6821' Loggers 6833'
 HOLE SIZE 7 7/8"

Flt clr @ 6758.05'
 OPERATOR Newfield Production Company
 WELL Hawkeye Fed. S-23-8-16
 FIELD/PROSPECT Monument Butte
 CONTRACTOR & RIG # NDSI #2

LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		Landing Jt					14
		Short jt 4577' (6.90')					
155	5 1/2"	ETC LT & C casing	15.5#	J-55	8rd	A	6744.05
		Float collar					0.6
1	5 1/2"	ETC LT&C csg	15.5#	J-55	8rd	A	34.66
		GUIDE shoe			8rd	A	0.65

CASING INVENTORY BAL.	FEET	JTS	TOTAL LENGTH OF STRING	6793.96
TOTAL LENGTH OF STRING	6793.96	156	LESS CUT OFF PIECE	14
LESS NON CSG. ITEMS	15.25		PLUS DATUM TO T/CUT OFF CSG	12
PLUS FULL JTS. LEFT OUT	177.79	4	CASING SET DEPTH	6791.96
TOTAL	6956.50	160		

TOTAL CSG. DEL. (W/O THRDS)	6956.5	160	} COMPARE
TIMING	1ST STAGE	2nd STAGE	
BEGIN RUN CSG.	3/17/2007	7:00 PM	GOOD CIRC THRU JOB <u>YES</u>
CSG. IN HOLE	3/17/2007	11:30 PM	Bbls CMT CIRC TO SURFACE <u>31</u>
BEGIN CIRC	3/17/2007	11:30 PM	RECIPROCATED PIPE FOR <u>THRUSTROKE</u> NA
BEGIN PUMP CMT	3/18/2007	1:00 AM	DID BACK PRES. VALVE HOLD ? <u>YES</u>
BEGIN DSPL. CMT	3/18/2007	2:25 AM	BUMPED PLUG TO <u>2470</u> PSI
PLUG DOWN	3/18/2007	2:53 AM	

CEMENT USED		CEMENT COMPANY- B. J.	
STAGE	# SX	CEMENT TYPE & ADDITIVES	
1	350	Premiite II w/ 10% gel + 3 % KCL, 3#s /sk CSE + 2# sk/kolseal + 1/2#s/sk Cello Flake mixed @ 11.0 ppg W / 3.43 cf/sk yield	
2	480	50/50 poz W/ 2% Gel + 3% KCL, .5%EC1, 1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD	
CENTRALIZER & SCRATCHER PLACEMENT		SHOW MAKE & SPACING	
Centralizers - Middle first, top second & third. Then every third collar for a total of 20.			

COMPANY REPRESENTATIVE Alvin Nielsen DATE 3/18/2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
 NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630
 Myton, UT 84052

3b. Phone (include are code)
 435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
 1852 FSL 1836 FEL
 NWSE Section 23 T8S R16E

5. Lease Serial No.
 USA UTU-34346

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or
 HAWKEYE UNIT

8. Well Name and No.
 HAWKEYE FEDERAL S-23-8-16

9. API Well No.
 4301333261

10. Field and Pool, or Exploratory Area
 MONUMENT BUTTE

11. County or Parish, State
 DUCHESNE, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production(Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to	<input type="checkbox"/> Plug Back	<input checked="" type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Formation water is produced to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY**

I hereby certify that the foregoing is true and correct (Printed/ Typed) Mandie Crozier	Title Regulatory Specialist
Signature <i>Mandie Crozier</i>	Date 04/24/2007

Approved by _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice 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.	Office _____	

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 and fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

RECEIVED

APR 25 2007

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: USA UTU-34346
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: HAWKEYE UNIT
8. WELL NAME and NUMBER: HAWKEYE FEDERAL S-23-8-16
9. API NUMBER: 4301333261
10. FIELD AND POOL, OR WILDCAT: MONUMENT BUTTE

SUNDRY NOTICES AND REPORTS ON WELLS

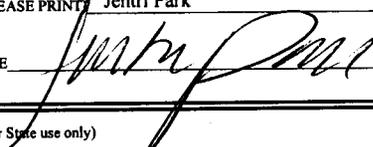
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		8. WELL NAME and NUMBER: HAWKEYE FEDERAL S-23-8-16
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		9. API NUMBER: 4301333261
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052	PHONE NUMBER 435.646.3721	10. FIELD AND POOL, OR WILDCAT: MONUMENT BUTTE
4. LOCATION OF WELL: FOOTAGES AT SURFACE: 1852 FSL 1836 FEL		COUNTY: DUCHESNE
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NWSE, 23, T8S, R16E		STATE: UT

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 _____	<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"/> TEMPORARITLY 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 FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 05/08/2007	<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/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Weekly Status Report
	<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.
The above subject well was completed on 04/27/07, attached is a daily completion status report.

NAME (PLEASE PRINT) Jentri Park	TITLE Production Clerk
SIGNATURE 	DATE 05/08/2007

(This space for State use only)

RECEIVED
MAY 1 / 2007
DIV. OF OIL, GAS & MINING

Daily Activity Report

Format For Sundry

HAWKEYE S-23-8-16

2/1/2007 To 6/30/2007

4/11/2007 Day: 1**Completion**

Rigless on 4/10/2007 - Install 5M frac head. NU 6" 5M Cameron BOP. RU H/O truck & pressure test blind rams, frac head, csg & casing valves to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD @ 6722' & cement top @ 104'. Perforate stage #1, CP1 sds @ 6224-6232' w/ 3-1/8" Slick Guns (23 gram, .49"HE, 120°) w/ 4 spf for total of 32 shots. 161 bbls EWTR. SIFN.

4/14/2007 Day: 2**Completion**

Rigless on 4/13/2007 - RU BJ Services "Ram Head" frac flange. RU BJ & frac stage #1 CP1 sds down casing w/ 35,334#'s of 20/40 sand in 387 bbls of Lightning 17 frac fluid. Open well w/ 0 psi on casing. Perfs broke down @ 2625 psi. Treated @ ave pressure of 25.1 w/ ave rate of 25.1 bpm w/ 8 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. ISIP was 2400. 548 bbls EWTR. Leave pressure on well. RU Perforators LLC WLT, crane & lubricator. RIH w/ Weatherford 5-1/2" composite flow through frac plug (6K) & 8' perf gun. Set plug @ 5900'. Perforate A3 sds @ 5792-5800' w/ 3-1/8" Slick Guns (19 gram, .49"HE, 90°) w/ 4 spf for total of 32 shots. RU BJ & frac stage #2 w/ 25,265#'s of 20/40 sand in 347 bbls of Lightning 17 frac fluid. Open well w/ 1873 psi on casing. Perfs broke down @ 3844 psi. Treated @ ave pressure of 1855 w/ ave rate of 25.1 bpm w/ 6.5 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. ISIP was 2009. 895 bbls EWTR. Leave pressure on well. RU WLT. RIH w/ flow through frac plug & 5' perf gun. Set plug @ 5380'. Charge went off but didn't shear off setting tool. Flow well back. Pull off rope socket. Fish top @ 5361'. SIFN.

4/16/2007 Day: 3**Completion**

NC #1 on 4/15/2007 - 6:30AM MIRU NC#1, N/U Wash HD, R/U Flr, Spot R/Pump & Eq,

4/17/2007 Day: 4**Completion**

NC #1 on 4/16/2007 - Open well w/ 0 psi on casing. RU 3-1/8" fish tool, jars & bumper sub. PU TIH w/ new J-55, 2-7/8", 6.5# tbg off trailer. W/ 170 jts in tag sand @ 5494'. RU pump & tanks. Circulate well clean to fish @ 5561'. Work fish free. Circulate well clean. TOOH w/ tbg. RD fish tools. RU BJ Services & WLT. RIH w/ solid frac plug & 5' perf gun. Set plug @ 5560'. Perforate C sds @ 5476-81' w/ 4 spf for total of 20 shots. SIFN.

4/18/2007 Day: 5**Completion**

NC #1 on 4/17/2007 - RU BJ & frac stage #3, C sds down casing w/ 14,766#'s of 20/40 sand in 264 bbls of Lightning 17 frac fluid. Open well w/ 86 psi on casing. Perfs broke down @ 3067 psi. Treated @ ave pressure of 2802 w/ ave rate of 25 bpm w/ 6.5 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. ISIP was 1831. 1019 bbls EWTR. Leave pressure on well. RU WLT. RIH w/ solid composite frac plug & 15' perf gun. Set plug @ 5430'. Perforate D2 sds @ 5363-78' w/ 4 spf for total of 60 shots. RU BJ & frac stage #4 w/ 100,234#'s of 20/40 sand in 713 bbls of Lightning 17 frac fluid. Open well w/ 670 psi on casing. Perfs broke down @ 2953

psi. Treated @ ave pressure of 1870 w/ ave rate of 25.5 bpm w/ 8 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. ISIP was 2013. 1732 bbls EWTR. Leave pressure on wellRU WLT. RIH w/ solid composite frac plug & 12' perf gun. Set plug @ 5320'. Perforate D1 sds @ 5286-98' & DS3 sds @ 5240-54' w/ 4 spf for total of 104 shots. RU BJ & frac stage #5 w/ 115,521#'s of 20/40 sand in 797 bbls of Lightning 17 frac fluid. Open well w/ 52 psi on casing. Perfs broke down @ 3136 psi. Treated @ ave pressure of 1877 w/ ave rate of 25.4 bpm w/ 8 ppg of sand. Spot 12 bbls of 15% HCL acid in flush for next stage. ISIP was 2126. 2527 bbls EWTR. Leave pressure on well. RU WLT. RIH w/ solid composite frac plug & 17' perf gun. Set plug @ 4860'. Perforate GB4 sds @ 4742-59' w/ 4 spf for total of 68 shots. RU BJ & frac stage #6 w/ 66,390#'s of 20/40 sand in 542 bbls of Lightning 17 frac fluid. Open well w/ 1750 psi on casing. Perfs broke down @ 3733 psi. Treated @ ave pressure of 2269 w/ ave rate of 25.4 bpm w/ 8 ppg of sand. ISIP was 2381. 3069 bbls EWTR. RD BJ & WLT. Flow well back. Well flowed for 9 hours & died w/ 720 bbls rec'd, SWI, 9:30 PM C/SDNF, 5:00 PM To 5:30 PM C/Trvl

4/19/2007 Day: 6

Completion

NC #1 on 4/18/2007 - 6:30 AM OWU, 900 Psi On Csg, R/U WLT, RIH W/ Solid Composit Kill Plg, Set @ 4,690', R/D WLT, N/D 10,000 BOP & Frac Finge, N/U 3,000 Flinge & 5,000 BOP, RIH W/ 147Jts Tbg To Kill Plg Set @ 4,690', R/U Nabors Pwr Swvl, R/U R/pmp, C/SDFN, 6:00 PM To 6:30 PM C/Trvl

4/20/2007 Day: 7

Completion

NC #1 on 4/19/2007 - 6:30 AM OWU, RIH W/-Tbg To Kill Plg @ 4690', Drill Up Plg, Swvl I/Hle To Plg @ 4860', Drill Up Plg, Swvl I/Hle To Plg @ 5320', Drill Up Plg, Swvl I/Hle To Plg @ 5430', Drill Up Plg, Swvl I/Hle To Plg @ 5560', Drill Up Plg, RIH To Plg @ 5580', Drill Up Plg, Swvl I/Hle To Fill @ 5804', C/Out To Plg @ 5900', Drill Up Plg, Swvl I/Hle To Fill @ 6501', Drill & C/Out To PBTD @ 6755', Curc Well Clean 35 Min, R/D Swvl, POOH W/-4 Jts Tbg, EOB @ 6630', SWI, 7:30PM C/SDFN. Gained 167 Bbls Wtr On C/Out To PBTD.

4/21/2007 Day: 8

Completion

NC #1 on 4/20/2007 - 6:30 AM OWU W/-100 Psi On Tbg, 150 Psi On Csg, Open Tbg Up, Started Flowing, Well Flowed 265 Bbls Wtr, Lite Trace Sand, 4% Oil Cut @ End Of Flow Back,12:00PM R/U R/pmp & pmp 30 Bbls Wtr D/Tbg For Tbg Kill, RIH W/-4 Jts Tbg To Fill @ 6743', 12' Of New Fill, C/Out To PBTD @ 6755', Curc Well Clean, POOH W/-37 Jts Tbg, (Note) Tbg Parted Due To Gaudled Box & Pin. P/U & RIH W/-Ovr Shot, X-Ovr,2 7/8x6' Tbg Sub, 37 Jts Tbg To Fish Top, Lach On Fish, POOH W/-1 Jt Tbg, (Note) Well Came In, Started Flowing. R/U R/pmp & Curc Well Clean. POOH W/-37 Jts Tbg, 2 7/8x6' Tbg Sub, X-Ovr, Ovr Shot & Fish. Change Out Bad Tbg Collar, RIH W/-Tbg, EOB @ 6630', 5:30PM C/SDFN.

4/24/2007 Day: 9

Completion

NC #1 on 4/23/2007 - 6:30 AM OWU W/-300 Psi On Tbg, 400 Psi On Csg, Open Tbg Up, Started Flowing Wtr Gas & Oil, R/U R/pmp, pmp 230 Bbls Brine Wtr D/Tbg, Wt For Well To Die. Well Would Not Die. Flowed 78 Bbls Up Csg In 37 Min, POOH W/-9 Jts Tbg, N/U 3,000 W/-HD Bonnet On BOP, R/U Flow Line & Choke To Treater, OWU, Flow Well To Flat Tank, Recvred 32 Bbls Wtr, Turn Well To Production Tanks, R/D Rig. Move Out @ 3:30PM

4/27/2007 Day: 10

Completion

NC #1 on 4/26/2007 - 6:30 AM MIRU NC#1,D&M H/Oiler Had 200 Bbls 10# Brine Wtr Curc Around Well By 7:00AM For Kill, N/D W/-HD, POOH & L/D 198 Jts Tbg, Bit Sub & Bit.P/U & RIH W/-N/C, 2 Jts Tbg, S/N, 1 Jt Tbg, 5 1/2 T/A, 196 Jts Tbg, Well Started Flowing, R/U R/pmp, pmp 20 Bbls Brine Wtr D/Tbg, N/D BOP, Set T/A In 15,000 Tension, N/U W/-HD. SWI, 8:00PM C/SDFN, 8:00PM To 8:30PM C/Trvl.

4/28/2007 Day: 11

Completion

NC #1 on 4/27/2007 - 6:30AM OWU, P/U Stroke & RIH W/-CDI-2 1/2x1 3/4x20' RHAC, 4-1 1/2x25' Wt Bars, 245-7/8X25' Scrapered Rods, 7/8x8'-4'-2' Ponys, 1 1/2x26' Polish Rod, R/U Unit, R/U R/pmp, Fill Tbg W/-7 Bbls Wtr, Stroke Unit & Tbg To 800 Psi, POP @ 1:00PM, 122'' SL, 6 SPM, (Final Report).

Pertinent Files: Go to File List

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.

UTU-34346

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NA

7. UNIT AGREEMENT NAME

Hawkeye

8. FARM OR LEASE NAME, WELL NO.

Hawkeye S-23-8-16

1a. TYPE OF WORK

OIL WELL GAS WELL DRY Other _____

1b. TYPE OF WELL

NEW WELL WORK OVER DEEPEN PLUG BACK DIFF RESVR. Other _____

2. NAME OF OPERATOR

Newfield Exploration Company

3. ADDRESS AND TELEPHONE NO.

1401 17th St. Suite 1000 Denver, CO 80202

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.*)

At Surface 1852' FSL & 1836' FEL (NW/SE) Sec. 23, T8S, R16E

At top prod. Interval reported below

9. WELL NO.

43-013-33261

10. FIELD AND POOL OR WILDCAT

Monument Butte

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 23, T8S, R16E

At total depth

1207 fsl 1210 fel

14. API NO.

43-013-33261

DATE ISSUED

08/17/06

12. COUNTY OR PARISH

Duchesne

13. STATE

UT

15. DATE SPUNDED

03/02/07

16. DATE T.D. REACHED

03/17/07

17. DATE COMPL. (Ready to prod.)

04/23/07

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*

5469' GL

19. ELEV. CASINGHEAD

5481' KB

20. TOTAL DEPTH, MD & TVD

6821' 6751

21. PLUG BACK T.D., MD & TVD

6755' 6685

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

----->

ROTARY TOOLS

X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*

Green River 4742'-6232'

25. WAS DIRECTIONAL SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Induction Guard, SP, Compensated Density, Compensated Neutron, GR, Caliper, Cement Bond Log

27. WAS WELL CORED

No

23. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8" - J-55	24#	322'	12-1/4"	To surface with 160 sx Class "G" cmt	
5-1/2" - J-55	15.5#	6792'	7-7/8"	350 sx Premlite II and 480 sx 50/50 Poz	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	EOT @ 6295'	TA @ 6197'

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	SPF/NUMBER	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
(CP1) 6224'-6232'	.49"	4/32	6224'-6232'	Frac w/ 35,334# 20/40 sand in 387 bbls fluid
(A3) 5792'-5800'	.43"	4/32	5792'-5800'	Frac w/ 25,265# 20/40 sand in 347 bbls fluid
(C) 5476'-5481'	.43"	4/20	5476'-5481'	Frac w/ 14,766# 20/40 sand in 264 bbls fluid
(D2) 5363'-5378'	.43"	4/60	5363'-5378'	Frac w/ 100,234# 20/40 sand in 713 bbls fluid
(D1 & DS3) 5286'-5298', 5240'-5254'	.43"	4/104	5240'-5298'	Frac w/ 115,521# 20/40 sand in 797 bbls fluid
(GB4) 4742'-4759'	.43"	4/68	4742'-4759'	Frac w/ 66,390# 20/40 sand in 542 bbls fluid

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)					WELL STATUS (Producing or shut-in)	
04/23/07	2-1/2" x 1-3/4" x 20' RHAC SM Plunger Pump					PRODUCING	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL--BBL.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO
10 day ave			----->	58	17	195	293
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (CORR.)	
		----->					

**RECEIVED
MAY 18 2007**

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold & Used for Fuel

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

DIV. OF OIL, GAS & MINING

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

John M. Jentri
Jentri Park

TITLE

Production Clerk

DATE

5/17/2005

JP

*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries);

38. GEOLOGIC MARKERS

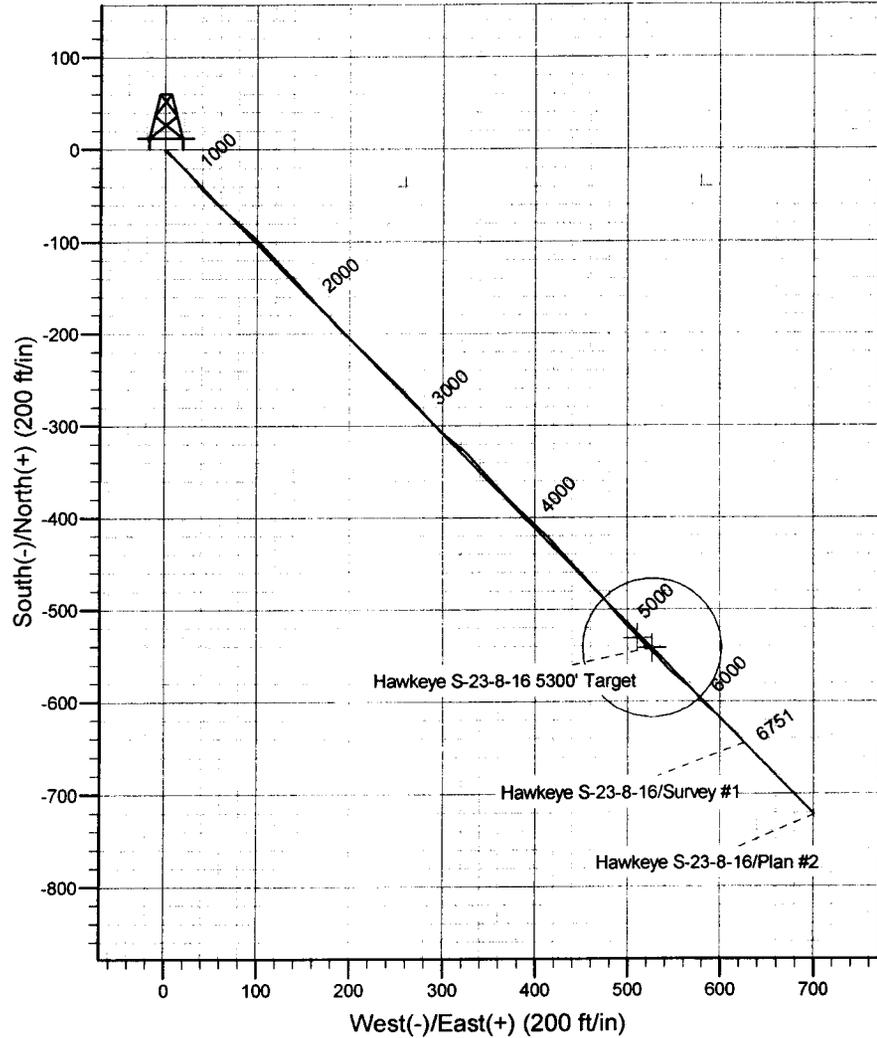
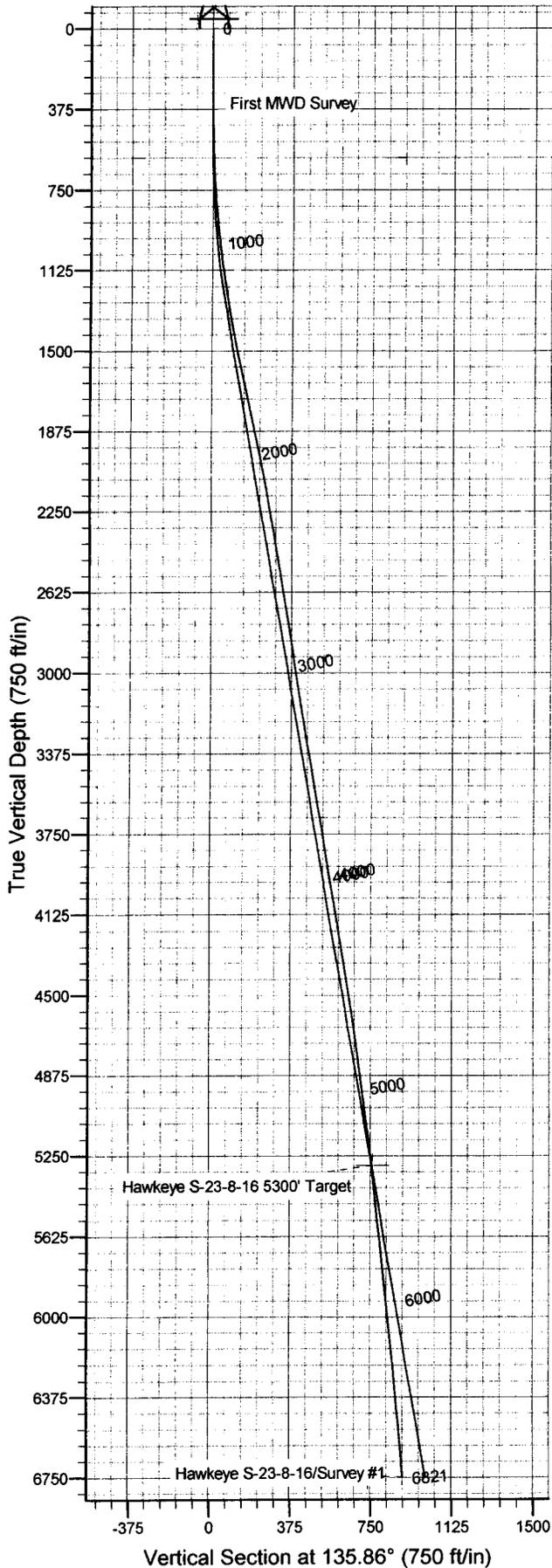
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
			Well Name Hawkeye S-23-8-16	Garden Gulch Mkr	4218'	
				Garden Gulch 1	4429'	
				Garden Gulch 2	4556'	
				Point 3 Mkr	4853'	
				X Mkr	5092'	
				Y-Mkr	5126'	
				Douglas Creek Mkr	5258'	
				BiCarbonate Mkr	5534'	
				B Limestone Mkr	5680'	
				Castle Peak	6136'	
				Basal Carbonate	6574'	
				Wasatch	6700'	
				Total Depth (LOGGERS)	6833'	



Scientific Drilling
Rocky Mountain Operations

Project: Duchesne County, UT
Site: Hawkeye S-23-8-16
Well: Hawkeye S-23-8-16
Wellbore: OH
Design: OH

Newfield Exploration Co.



WELL DETAILS: Hawkeye S-23-8-16

		Ground Level: GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)				
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7208753.09	2036556.39	40° 6' 4.480 N	110° 5' 1.580 W	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Hawkeye S-23-8-16, True North
Vertical (TVD) Reference: GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
Calculation Method: Minimum Curvature
Local North: True
Location: Sec. 23 T8S R16E

PROJECT DETAILS: Duchesne County, UT

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Utah Central Zone

Survey: Survey #1 (Hawkeye S-23-8-16/OH)

Created By: Julie Cruse Date: 2007-03-19

Newfield Exploration Co.

Duchesne County, UT

Hawkeye S-23-8-16

Hawkeye S-23-8-16

OH

Survey: Survey #1

Standard Survey Report

19 March, 2007

Scientific Drilling Survey Report

Company: Newfield Exploration Co.
Project: Duchesne County, UT
Site: Hawkeye S-23-8-16
Well: Hawkeye S-23-8-16
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Hawkeye S-23-8-16
TVD Reference: GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
MD Reference: GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: MultiUserEDM

Project	Duchesne County, UT		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site	Hawkeye S-23-8-16, Sec. 23 T8S R16E				
Site Position:		Northing:	7,208,753.10 ft	Latitude:	40° 6' 4.480 N
From:	Lat/Long	Easting:	2,036,556.39 ft	Longitude:	110° 5' 1.580 W
Position Uncertainty:	0.00 ft	Slot Radius:	0.000 in	Grid Convergence:	0.91 °

Well	Hawkeye S-23-8-16, SHL: 1852' FSL, 1836' FEL					
Well Position	+N/-S	0.00 ft	Northing:	7,208,753.09 ft	Latitude:	40° 6' 4.480 N
	+E/-W	0.00 ft	Easting:	2,036,556.39 ft	Longitude:	110° 5' 1.580 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,469.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2007-03-07	11.87	65.95	52,741

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.00	0.00	0.00	135.86

Survey Program	Date	2007-03-19			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
349.00	6,821.00	Survey #1 (OH)	MWD	MWD - Standard	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
349.00	0.37	218.10	349.00	-0.89	-0.70	0.15	0.11	0.11	0.00	
First MWD Survey										
379.00	0.31	217.44	379.00	-1.03	-0.80	0.18	0.20	-0.20	-2.20	
410.00	0.35	194.04	410.00	-1.19	-0.88	0.24	0.45	0.13	-75.48	
441.00	0.41	158.83	441.00	-1.38	-0.86	0.39	0.76	0.19	-113.58	
471.00	0.62	142.39	470.99	-1.61	-0.72	0.65	0.85	0.70	-54.80	
500.00	0.93	131.66	499.99	-1.89	-0.45	1.04	1.18	1.07	-37.00	
531.00	1.22	127.36	530.99	-2.26	0.00	1.62	0.97	0.94	-13.87	
561.00	1.61	126.68	560.98	-2.70	0.59	2.35	1.30	1.30	-2.27	
592.00	2.00	127.16	591.96	-3.29	1.37	3.32	1.26	1.26	1.55	
622.00	2.31	128.01	621.94	-3.98	2.26	4.43	1.04	1.03	2.83	
652.00	2.76	127.44	651.91	-4.79	3.31	5.75	1.50	1.50	-1.90	

Scientific Drilling

Survey Report

Company:	Newfield Exploration Co.	Local Co-ordinate Reference:	Well Hawkeye S-23-8-16
Project:	Duchesne County, UT	TVD Reference:	GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
Site:	Hawkeye S-23-8-16	MD Reference:	GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
Well:	Hawkeye S-23-8-16	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	MultiUserEDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
683.00	3.16	125.09	682.87	-5.74	4.61	7.32	1.35	1.29	-7.58
713.00	3.59	131.94	712.82	-6.84	5.98	9.07	1.96	1.43	22.83
744.00	3.80	130.29	743.75	-8.15	7.49	11.06	0.76	0.68	-5.32
774.00	4.15	132.60	773.68	-9.53	9.04	13.14	1.28	1.17	7.70
804.00	4.35	136.23	803.60	-11.09	10.63	15.36	1.12	0.67	12.10
835.00	4.76	136.24	834.50	-12.86	12.33	17.82	1.32	1.32	0.03
865.00	5.04	134.30	864.39	-14.68	14.14	20.38	1.08	0.93	-6.47
897.00	5.35	134.86	896.26	-16.72	16.20	23.28	0.98	0.97	1.75
928.00	5.88	136.00	927.11	-18.88	18.33	26.31	1.75	1.71	3.68
958.00	6.42	135.08	956.94	-21.17	20.58	29.53	1.83	1.80	-3.07
988.00	6.61	136.21	986.74	-23.61	22.96	32.93	0.76	0.63	3.77
1,019.00	7.13	140.18	1,017.52	-26.37	25.43	36.63	2.27	1.68	12.81
1,051.00	7.61	139.87	1,049.26	-29.52	28.06	40.73	1.51	1.50	-0.97
1,082.00	8.02	139.98	1,079.97	-32.74	30.78	44.93	1.32	1.32	0.35
1,114.00	8.27	139.01	1,111.65	-36.19	33.72	49.45	0.89	0.78	-3.03
1,146.00	8.35	137.58	1,143.31	-39.64	36.80	54.08	0.69	0.25	-4.47
1,176.00	8.62	136.72	1,172.98	-42.89	39.81	58.50	0.99	0.90	-2.87
1,207.00	8.89	135.60	1,203.62	-46.29	43.08	63.22	1.03	0.87	-3.61
1,239.00	9.09	133.74	1,235.23	-49.80	46.63	68.22	1.10	0.62	-5.81
1,270.00	9.49	133.76	1,265.82	-53.26	50.25	73.22	1.29	1.29	0.06
1,301.00	9.94	132.50	1,296.38	-56.84	54.07	78.44	1.61	1.45	-4.06
1,332.00	10.38	132.03	1,326.89	-60.52	58.11	83.90	1.44	1.42	-1.52
1,426.00	10.95	130.95	1,419.27	-72.04	71.15	101.25	0.64	0.61	-1.15
1,520.00	11.76	132.34	1,511.43	-84.34	84.97	119.70	0.91	0.86	1.48
1,613.00	12.02	134.74	1,602.43	-97.54	98.86	138.84	0.60	0.28	2.58
1,706.00	12.28	136.01	1,693.35	-111.47	112.60	158.42	0.40	0.28	1.37
1,798.00	12.43	137.61	1,783.22	-125.82	126.07	178.10	0.41	0.16	1.74
1,892.00	12.46	137.59	1,875.01	-140.78	139.73	198.34	0.03	0.03	-0.02
1,987.00	11.71	138.57	1,967.90	-155.58	153.02	218.22	0.82	-0.79	1.03
2,078.00	11.21	136.77	2,057.09	-168.95	165.19	236.29	0.68	-0.55	-1.98
2,169.00	10.60	136.20	2,146.45	-181.43	177.05	253.50	0.68	-0.67	-0.63
2,262.00	10.29	136.00	2,237.90	-193.58	188.74	270.36	0.34	-0.33	-0.22
2,356.00	9.52	136.47	2,330.50	-205.26	199.92	286.53	0.82	-0.82	0.50
2,450.00	8.89	133.60	2,423.29	-215.90	210.54	301.56	0.83	-0.67	-3.05
2,544.00	9.19	133.83	2,516.12	-226.11	221.21	316.32	0.32	0.32	0.24
2,637.00	9.46	135.17	2,607.89	-236.67	231.96	331.38	0.37	0.29	1.44
2,730.00	8.91	135.08	2,699.70	-247.19	242.43	346.23	0.59	-0.59	-0.10
2,821.00	9.39	134.89	2,789.54	-257.42	252.67	360.70	0.53	0.53	-0.21
2,915.00	9.26	136.98	2,882.30	-268.36	263.26	375.92	0.39	-0.14	2.22
3,008.00	8.52	138.24	2,974.18	-278.97	272.95	390.29	0.82	-0.80	1.35
3,102.00	9.13	137.09	3,067.07	-289.63	282.67	404.70	0.68	0.65	-1.22
3,194.00	9.33	137.28	3,157.88	-300.45	292.70	419.46	0.22	0.22	0.21
3,287.00	9.84	130.40	3,249.58	-311.14	303.86	434.90	1.35	0.55	-7.40
3,379.00	9.49	127.93	3,340.28	-320.90	315.83	450.24	0.59	-0.38	-2.68
3,472.00	9.82	138.44	3,431.97	-331.55	327.14	465.76	1.93	0.35	11.30
3,567.00	9.72	138.20	3,525.59	-343.59	337.86	481.86	0.11	-0.11	-0.25
3,660.00	9.38	136.76	3,617.30	-354.96	348.28	497.29	0.45	-0.37	-1.55
3,753.00	10.17	137.96	3,708.95	-366.58	358.97	513.07	0.88	0.85	1.29
3,846.00	9.65	136.74	3,800.56	-378.36	369.81	529.07	0.60	-0.56	-1.31
3,939.00	9.32	134.19	3,892.29	-389.28	380.56	544.39	0.57	-0.35	-2.74
4,032.00	9.82	133.88	3,984.00	-400.03	391.67	559.84	0.54	0.54	-0.33
4,127.00	9.22	133.76	4,077.69	-410.91	403.01	575.54	0.63	-0.63	-0.13
4,219.00	9.56	135.98	4,168.46	-421.50	413.64	590.55	0.54	0.37	2.41
4,313.00	9.10	138.48	4,261.21	-432.68	423.99	605.78	0.65	-0.49	2.66

Scientific Drilling

Survey Report

Company: Newfield Exploration Co.
Project: Duchesne County, UT
Site: Hawkeye S-23-8-16
Well: Hawkeye S-23-8-16
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well Hawkeye S-23-8-16
 GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
 GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
 True
 Minimum Curvature
 MultiUserEDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,408.00	9.64	139.34	4,354.94	-444.34	434.16	621.23	0.59	0.57	0.91	
4,499.00	9.49	136.26	4,444.68	-455.54	444.31	636.33	0.59	-0.16	-3.38	
4,592.00	8.81	136.06	4,536.50	-466.20	454.55	651.12	0.73	-0.73	-0.22	
4,687.00	8.32	138.85	4,630.44	-476.62	464.12	665.26	0.68	-0.52	2.94	
4,780.00	8.18	139.60	4,722.47	-486.72	472.84	678.58	0.19	-0.15	0.81	
4,875.00	8.25	139.28	4,816.50	-497.04	481.66	692.13	0.09	0.07	-0.34	
4,968.00	7.59	141.31	4,908.61	-506.89	489.86	704.90	0.77	-0.71	2.18	
5,062.00	7.21	137.43	5,001.83	-516.08	497.73	716.98	0.67	-0.40	-4.13	
5,162.00	6.92	135.83	5,101.07	-525.02	506.17	729.28	0.35	-0.29	-1.60	
5,256.00	6.76	136.95	5,194.40	-533.12	513.89	740.47	0.22	-0.17	1.19	
5,350.00	6.68	135.16	5,287.76	-541.04	521.52	751.47	0.24	-0.09	-1.90	
5,363.15	9.80	135.86	5,300.00	-541.99	526.00	755.27	23.74	23.72	5.30	
Hawkeye S-23-8-16 5300' Target										
5,444.00	6.45	135.89	5,381.14	-548.71	529.05	762.22	4.14	-4.14	0.04	
5,536.00	6.11	140.58	5,472.59	-556.20	535.76	772.26	0.67	-0.37	5.10	
5,630.00	6.11	132.05	5,566.06	-563.42	542.65	782.24	0.96	0.00	-9.07	
5,724.00	6.52	135.76	5,659.49	-570.59	550.09	792.57	0.62	0.44	3.95	
5,817.00	6.81	127.64	5,751.86	-577.74	558.14	803.31	1.06	0.31	-8.73	
5,910.00	6.61	133.00	5,844.22	-584.76	566.42	814.11	0.71	-0.22	5.76	
6,004.00	5.93	137.59	5,937.66	-592.04	573.65	824.37	0.90	-0.72	4.88	
6,099.00	5.89	134.05	6,032.16	-599.05	580.46	834.14	0.39	-0.04	-3.73	
6,193.00	5.46	136.11	6,125.70	-605.62	587.03	843.44	0.51	-0.46	2.19	
6,286.00	5.77	130.22	6,218.25	-611.83	593.67	852.51	0.70	0.33	-6.33	
6,381.00	5.32	136.52	6,312.81	-618.11	600.35	861.67	0.80	-0.47	6.63	
6,475.00	5.38	133.11	6,406.40	-624.29	606.56	870.43	0.34	0.06	-3.63	
6,570.00	5.08	135.56	6,501.00	-630.33	612.76	879.08	0.39	-0.32	2.58	
6,664.00	4.65	135.72	6,594.66	-636.03	618.33	887.06	0.46	-0.46	0.17	
6,759.00	4.23	144.91	6,689.38	-641.65	623.03	894.37	0.87	-0.44	9.67	
6,770.00	4.13	144.94	6,700.35	-642.31	623.50	895.16	0.91	-0.91	0.27	
6,821.00	4.13	144.94	6,751.22	-645.32	625.61	898.79	0.00	0.00	0.00	

Projection to TD

Scientific Drilling

Survey Report

Company: Newfield Exploration Co.
Project: Duchesne County, UT
Site: Hawkeye S-23-8-16
Well: Hawkeye S-23-8-16
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Hawkeye S-23-8-16
TVD Reference: GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
MD Reference: GL 5469' & RKB 12' @ 5481.00ft (NDSI 2)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: MultiUserEDM

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Old Hawkeye S-23-8-16 - hit/miss target - Shape	0.00	0.00	6,751.00	-530.99	510.00	7,208,230.24	2,037,074.74	40° 5' 59.232 N	110° 4' 55.017 W
- survey misses by 162.17ft at 6809.26ft MD (6739.51 TVD, -644.63 N, 625.12 E)									
- Point									
Hawkeye S-23-8-16 530	0.00	0.00	5,300.00	-541.99	526.00	7,208,219.50	2,037,090.91	40° 5' 59.123 N	110° 4' 54.811 W
- survey misses by 3.27ft at 5363.15ft MD (5300.77 TVD, -542.39 N, 522.84 E)									
- Circle (radius 75.00)									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
349.00	349.00	-0.89	-0.70	First MWD Survey
6,821.00	6,751.22	-645.32	625.61	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-34346
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: HAWKEYE FED S-23-8-16
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. API NUMBER: 43013332610000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext
9. FIELD and POOL or WILDCAT: MONUMENT BUTTE	4. LOCATION OF WELL FOOTAGES AT SURFACE: 1852 FSL 1836 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 23 Township: 08.0S Range: 16.0E Meridian: S
COUNTY: DUCHESNE	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 5/6/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Absorption Test"/>

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

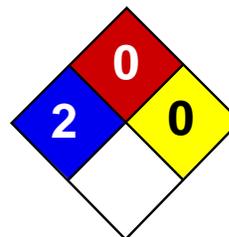
Newfield is going to conduct a 4 well absorption test program For the Hawkeye Federal S-23-8-16 the planned job is listed as follows:
 Reservoir: D1 sand (zone will be isolated and tested separately)
 Chemical: Surtek Solution 1 Alkali: 0.75 wt % NaOH (MSDS/TDS sheets provided) Surfactant: 0.10 wt% Alfoterra 145-4S (MSDS/TDS sheets provided) Volume to be pumped: 481.3 bbl

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

Date: May 14, 2013

By: *Derek Quist*

NAME (PLEASE PRINT) Mandie Crozier	PHONE NUMBER 435 646-4825	TITLE Regulatory Tech
SIGNATURE N/A	DATE 5/6/2013	



Health	2
Fire	0
Reactivity	0
Personal Protection	E

Material Safety Data Sheet

Sodium bromide MSDS

Section 1: Chemical Product and Company Identification

Product Name: Sodium bromide

Catalog Codes: SLS3820, SLS1600

CAS#: 7647-15-6

RTECS: VZ3150000

TSCA: TSCA 8(b) inventory: Sodium bromide

CI#: Not available.

Synonym: Bromide salt of sodium

Chemical Name: Sodium Bromide

Chemical Formula: NaBr

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Sodium bromide	7647-15-6	100

Toxicological Data on Ingredients: Sodium bromide: ORAL (LD50): Acute: 3500 mg/kg [Rat]. 7000 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.

Odor: Not available.

Taste: Not available.

Molecular Weight: 102.91 g/mole

Color: Not available.

pH (1% soln/water): 6.5-8.0

Boiling Point: 1390°C (2534°F)

Melting Point: 755°C (1391°F)

Critical Temperature: Not available.

Specific Gravity: 3.21 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol.

Solubility:

Easily soluble in cold water, hot water. Soluble in methanol. 1 g dissolves in 1.1 ml of water. 1 g dissolves in about 16 ml of alcohol. 1 g dissolves in 6 ml of methanol

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, moisture

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Absorbs moisture from the air but is not deliquescent. Hygroscopic. Also incompatible with alkaloidal and heavy metal salts, and Bromine Trifluoride.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 3500 mg/kg [Rat].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects (male and female effects on fertility and effects on newborns and fetotoxicity) based on animal data Human: passes the placental barrier, detected in maternal milk.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause mild skin irritation. Eyes: Causes eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation with nausea and vomiting, abdominal pain, constipation. Bromide poisoning following acute ingestion is more rare and may affect the central nervous system (CNS depression - somnolence, confusion, ataxia, coma and other symptoms similar to chronic ingestion), cardiovascular system (hypotension, tachycardia), kidneys (acute renal failure, urinary incontinence), and respiration (acute respiratory distress syndrome). It may also cause eye disturbances such as mydriasis and nystagmus, disturbances of apparent color of objects, blurring or indistinctness of vision, apparent movement or wiggling and change in apparent size of objects, large pupils, subnormal reaction to light, diplopia, and photophobia. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause skin rashes. Eyes: Prolonged or repeated eye contact may cause blepharitis, and conjunctivitis. Prolonged or repeated ingestion may cause skin rashes (bromoderma, acne, pyoderma gangrenosum, erythema multiforme), affect the liver, endocrine system (thyroid), metabolism(anorexia), blood, vision (visual disturbances, permanently decreased vision and may produce a toxic syndrome, "Bromism" which may be characterized by behavior/central nervous symptoms such CNS depression, irritability, headache, confusion, slurred speech, memory loss, lethargy, ataxia, tremor, agitation, delusion, disoriented, paranoia, aggressiveness, hallucinations, mania, fatigue, seizure, neuropathy, muscle weakness, coma. Also, in individuals with chronic bromism, the tongue may have a coated or furred appearance.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Sodium bromide

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

R36- Irritating to eyes. S2- Keep out of the reach of children. S24/25- Avoid contact with skin and eyes. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

Section 16: Other Information

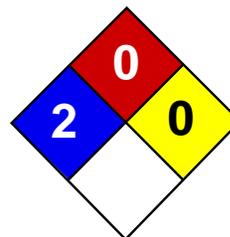
References: Not available.

Other Special Considerations: Not available.

Created: 10/10/2005 08:26 PM

Last Updated: 06/09/2012 12:00 PM

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.



Health	2
Fire	0
Reactivity	0
Personal Protection	E

Material Safety Data Sheet

Sodium bromide MSDS

Section 1: Chemical Product and Company Identification

Product Name: Sodium bromide

Catalog Codes: SLS3820, SLS1600

CAS#: 7647-15-6

RTECS: VZ3150000

TSCA: TSCA 8(b) inventory: Sodium bromide

CI#: Not available.

Synonym: Bromide salt of sodium

Chemical Name: Sodium Bromide

Chemical Formula: NaBr

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Sodium bromide	7647-15-6	100

Toxicological Data on Ingredients: Sodium bromide: ORAL (LD50): Acute: 3500 mg/kg [Rat]. 7000 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.

Odor: Not available.

Taste: Not available.

Molecular Weight: 102.91 g/mole

Color: Not available.

pH (1% soln/water): 6.5-8.0

Boiling Point: 1390°C (2534°F)

Melting Point: 755°C (1391°F)

Critical Temperature: Not available.

Specific Gravity: 3.21 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol.

Solubility:

Easily soluble in cold water, hot water. Soluble in methanol. 1 g dissolves in 1.1 ml of water. 1 g dissolves in about 16 ml of alcohol. 1 g dissolves in 6 ml of methanol

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, moisture

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Absorbs moisture from the air but is not deliquescent. Hygroscopic. Also incompatible with alkaloidal and heavy metal salts, and Bromine Trifluoride.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 3500 mg/kg [Rat].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects (male and female effects on fertility and effects on newborns and fetotoxicity) based on animal data Human: passes the placental barrier, detected in maternal milk.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause mild skin irritation. Eyes: Causes eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation with nausea and vomiting, abdominal pain, constipation. Bromide poisoning following acute ingestion is more rare and may affect the central nervous system (CNS depression - somnolence, confusion, ataxia, coma and other symptoms similar to chronic ingestion), cardiovascular system (hypotension, tachycardia), kidneys (acute renal failure, urinary incontinence), and respiration (acute respiratory distress syndrome). It may also cause eye disturbances such as mydriasis and nystagmus, disturbances of apparent color of objects, blurring or indistinctness of vision, apparent movement or wiggling and change in apparent size of objects, large pupils, subnormal reaction to light, diplopia, and photophobia. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause skin rashes. Eyes: Prolonged or repeated eye contact may cause blepharitis, and conjunctivitis. Prolonged or repeated ingestion may cause skin rashes (bromoderma, acne, pyoderma gangrenosum, erythema multiforme), affect the liver, endocrine system (thyroid), metabolism(anorexia), blood, vision (visual disturbances, permanently decreased vision and may produce a toxic syndrome, "Bromism" which may be characterized by behavior/central nervous symptoms such CNS depression, irritability, headache, confusion, slurred speech, memory loss, lethargy, ataxia, tremor, agitation, delusion, disoriented, paranoia, aggressiveness, hallucinations, mania, fatigue, seizure, neuropathy, muscle weakness, coma. Also, in individuals with chronic bromism, the tongue may have a coated or furred appearance.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Sodium bromide

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

R36- Irritating to eyes. S2- Keep out of the reach of children. S24/25- Avoid contact with skin and eyes. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/10/2005 08:26 PM

Last Updated: 06/09/2012 12:00 PM

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.



WELLBROM[®] 12.5 Completion Fluid

Description

WELLBROM 12.5 is a clear brine completion fluid based on an aqueous solution of sodium bromide.

Applications

Because of its high density, WELLBROM 12.5 is used extensively as a completion, fracturing, workover and packer fluid in oilfield applications.

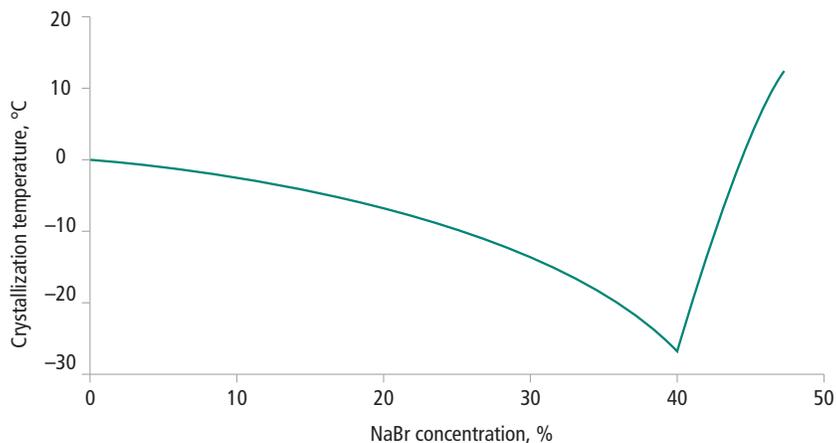
Specifications

Appearance	Clear
Density, 70°F (21.1°C), lb/gal	≥12.30

Physical properties

Appearance	Clear liquid, light to water-white color
Boiling point, °F (°C)	230–243 (110–117)
Flash point	None
Odor	Slight
Specific gravity, 70°F (21.1°C)	≥1.47
Color, APHA	≤30
pH (diluted 1:10 with water)	7.0–8.5

Variation of the crystallization temperature of NaBr with concentration.



Compatibility

Compatible materials of construction: This product is compatible with most non-metallic materials of construction, including fiber-glass-reinforced plastic (vinyl ester and polyester FRP), polyvinyl chloride (PVC), chlorinated polyvinyl chloride (CPVC), high-density polyethylene, polypropylene, Viton®, Teflon®, natural rubber, chlorobutyl rubber, Hypalon®, Halar® ethylene chlorotrifluoroethylene, Tefzel® ethylene/tetrafluoroethylene copolymer and most high-performance polytetrafluoroethylene-based gasket materials such as W.L. Gore GORE-TEX® and UPG Style 800, and Garlock Gylon® styles 3504 and 3500.

Titanium and high-nickel alloys such as Incone® 625 and 686, and Hastelloy® C-22 and C276 are also suitably compatible.

Incompatible materials of construction: The compatibility of this product with common metals depends on storage conditions and the environment the material is in. Aluminum, brass, carbon steel, copper, stainless steel and other common metals are generally not suitable for use. Carbon steel and copper can result in discoloration of the product. Aluminum suffers pitting attack. Dissolved oxygen increases the corrosion rate of stainless steel.

Recommended materials of construction for storage tanks: Vinyl ester FRP such as Ashland Derakane® 411 and 470, and bisphenol A fumarate polyester FRP such as Reichhold Atlae 6694 are suitable for use.

Recommended materials of construction for piping and valves: For piping, an adhesive socket FRP system such as the Reinforced Plastics Systems P150 series or the Smith Fibercast CL-2030 series is suitable. A flat-faced FRP ball valve such as the Nil-Cor 310 series is a good choice for FRP piping. Polypropylene-lined steel also is suitable. For low-pressure lines (<5 psig) such as overflows and drains, solid PVC or CPVC piping can be used, but should be safeguarded from mechanical damage.

Shipping information**Container information:**

Available in tank trailers and drums

Shipping classification:

Not regulated for transportation

Safety and handling information

For specific safety, toxicity and handling information, please refer to the material safety data sheet for this product.

Chemical registration numbers

CAS:	7647-15-6
EINECS:	231-599-9
MITI:	1-113



AMERICAS 451 Florida Street • Baton Rouge, Louisiana 70801-1765 • Tel +1 225-388-7402 or 800-535-3030 • Fax +1 225-388-7848

EUROPE Parc Scientifique de LLN • Rue du Bosquet 9 • B-1348 Louvain-la-Nueve Sud, Belgium • Tel +32-10-48-1711 • Fax +32-10-48-1717

ASIA PACIFIC 16h Floor, Fukoku Science Building • 2-2-2, Uchisawai-cho • Chiyoda-Ku, Tokyo 100-0011, Japan • Tel +81-3-5251-0796 • Fax: +81-3-3500-5623

ASIA PACIFIC China World Tower, Room 1317 • No. 1 Jan Guo Mon Wai Avenue • Beijing, 100004 China • Tel +86-10-6505-4153 or +86-10-6505-4154 • Fax +86-10-6505-4150

