

well has been drilled

I _____ of the _____

Company confirm that an approved drilling permit has been obtained by the owner of this well. Council approval of this permit will be shown on this form by presence of a permit number and signature of authorized Council representative.

Driller's signature _____

Date _____

Proposed Operations Data

Proposed average daily injection,	pressure	<u>vacuum</u> psig,	rate	<u>1000</u> bpd/gpm,	volume	<u> </u> bbl/gal
Approved average daily injection, (to be filled in by State Geologist).	pressure	<u> </u> psig,	rate	<u>1000</u> bpd/gpm,	volume	<u> </u> bbl/gal
Proposed maximum daily injection,	pressure	<u>400</u> psig,	rate	<u>1400</u> bpd/gpm,	volume	<u> </u> bbl/gal
Approved maximum daily injection, (to be filled in by State Geologist).	pressure	<u>400</u> psig,	rate	<u>1400</u> bpd/gpm,	volume	<u> </u> bbl/gal

Estimated fracture pressure/gradient of injection zone _____ .46 _____ psi/foot

Describe the source of the injection fluid Bartlesville production

Submit an appropriate analysis of the injection fluid. (Submit on separate sheet). several on file

Describe the compatibility of the proposed injected fluid with that of the receiving formations, including total dissolved solids comparisons.

this fluid is being reinjected into the
the same formation and depth that it came from.

Give an accurate description of the injection zone including lithologic descriptions, geologic name, thickness, depth, porosity, and permeability.

Bartlesville sandstone, 25 % porosity, 60 feet
thick, very good permeability.

Give an accurate description of the confining zones including lithologic description, geologic name, thickness, depth, porosity, and permeability.

shale above the Bartlesville, 2-6 feet thick

Submit all available logging and testing data on the well. Operator has none on this well

Give a detailed description of any well needing corrective action which penetrates the injection zone in the area of review (1/4 mile radius around well). Include the reason for and proposed corrective action.

None

Note: Permit approval for drilling only, not injection. Approval or denial for injection determined after Mechanical Integrity Test results reviewed and official notification given.

Missouri Oil and Gas Council

Form OGC-3I

INJECTION WELL PERMIT APPLICATION: to drill, deepen, plug back, or convert an existing well

APPLICATION TO DRILL DEEPEN PLUG BACK CONVERSION

NAME OF COMPANY OR OPERATOR Delphi International, Inc. DATE December 2, 1991

1924 South Utica, Ste. 810 Tulsa Oklahoma
Address City State

DESCRIPTION OF WELL AND LEASE			
Name of lease <u>Watkins Lease</u>	Well number <u>3</u>	Elevation (ground) <u>1075.86</u>	
WELL LOCATION (give footage from section lines) <u>1485</u> ft. from (N) (S) sec line <u>165</u> ft. from (E) (W) sec line			
WELL LOCATION Section <u>32</u> Township <u>65N</u> Range <u>39W</u>			COUNTY <u>Atchison</u>
Nearest distance from proposed location to property or lease line <u>165</u> feet		Distance from proposed location to nearest drilling, completed or applied - for well on the same lease <u>330</u> feet	
Proposed depth <u>1434 to 1484</u>	Rotary or Cable tools <u>Rotary</u>	Drilling Contractor, name and address <u>McGowan Drilling, 913/795-2258</u>	Approx. date work will start <u>December 10, 1991</u>
Number of acres in lease <u>80</u>	Number of wells on lease, including this well, completed in or drilling to this reservoir: <u>6</u> Number of abandoned wells on lease: <u>1</u>		
If lease purchased with one or more wells drilled, from whom purchased? Name <u>Carter Waters Corp./Hanes Acquisition</u> Address <u>Kansas City, Missouri</u>		No of Wells: producing <u>8</u> injection <u>0</u> inactive <u>1</u> abandoned <u>0</u>	
Status of Bond Single Well <input type="checkbox"/> Amt. _____ Blanket Bond <input checked="" type="checkbox"/> Amt. <u>\$30,000.</u>			<input checked="" type="checkbox"/> ON FILE <input type="checkbox"/> ATTACHED
Outline Proposed Stimulation Program <u>Delphi plans to deepen this well 50 feet in order to inject in the lower part of the Bartlesville Sandstone.</u>			
Proposed casing program		Approved casing - To be filled in by State Geologist	
amt.	size	wt/ft	cem.
<u>1434</u>	<u>5 1/2</u>	<u>14</u>	<u>/</u>
_____	_____	_____	_____
_____	_____	_____	_____
I, the undersigned, state that I am the <u>V.P. Of Operations</u> of the <u>Delphi Inter.</u> (company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.			
Signature <u>[Signature]</u>			

Permit Number 20046

SAMPLES REQUIRED SAMPLES NOT REQUIRED

Approved Date 12/9/91

WATER SAMPLES REQUIRED @

Approved by [Signature]

RECEIVED
DEC 04 1991

Note: This Permit not transferable to any other person or to any other location

Remit two copies to: Missouri Oil and Gas Council
P.O. Box 250, Rolla, MO 65401

One will be returned for driller's signature

MO Oil & Gas Council

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

8/1/84

I _____ of the Delphi International, Inc.
Company confirm that an approved drilling permit has been obtained by the owner of this well. Council approval of this permit will be shown on this form by presence of a permit number and signature of authorized Council representative.

Driller's signature _____

Date _____

Proposed Operations Data

Proposed average daily injection,	pressure	<u>700</u>	psig,	rate	<u>1000</u>	bpd,	volume	_____	bbl/gal
Approved average daily injection, (to be filled in by State Geologist).	pressure	<u>700</u>	psig,	rate	<u>1000</u>	bpd/gpm,	volume	_____	bbl/gal
Proposed maximum daily injection,	pressure	<u>500</u>	psig,	rate	<u>500</u>	bpd/	volume	_____	bbl/gal
Approved maximum daily injection, (to be filled in by State Geologist).	pressure	<u>500</u>	psig,	rate	<u>500</u>	bpd/gpm,	volume	_____	bbl/gal
Estimated fracture pressure/gradient of injection zone	<u>800 pounds</u>								psi/foot

Describe the source of the injection fluid Bartlesville Formation

Submit an appropriate analysis of the injection fluid. (Submit on separate sheet).

Describe the compatibility of the proposed injected fluid with that of the receiving formations, including total dissolved solids comparisons.

Water is going back into the same formation it was taken from.

Give an accurate description of the injection zone including lithologic descriptions, geologic name, thickness, depth, porosity, and permeability.

Water analysis on file with the Missouri Department of Natural Resources

Give an accurate description of the confining zones including lithologic description, geologic name, thickness, depth, porosity, and permeability.

Bartlesville Sandstone--Channel Sand.
Porosity 25%. Permeability 400 md.

60 Feet thick. 1400-1460 depth.

Submit all available logging and testing data on the well.

Give a detailed description of any well needing corrective action which penetrates the injection zone in the area of review (1/2 mile radius around well). Include the reason for and proposed corrective action.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI OIL AND GAS COUNCIL
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

Form OGC-5

NEW WELL WORKOVER DEEPEN PLUG BACK INJECTION SAME RESERVOIR DIFFERENT RESERVOIR OIL GAS DRY

OWNER: Delphi International Inc ADDRESS: 1924 S Utica Suite 810 Tulsa, 74104

LEASE NAME: Watkins Tarkio Field WELL NUMBER: # 3

LOCATION: sec. 32 T65N R39W NE SW NW SEC. TWP. AND RANGE OR BLOCK AND SURVEY

COUNTY: Atchison PERMIT NUMBER (OGC-3 OR OGC-31): 20046

DATE SPUDDED: 1944 DATE TOTAL DEPTH REACHED: 1944 DATE COMPLETED READY TO PRODUCE OR INJECT: 6 17 92 ELEVATION (DF, RKR, RT, OR Gr.) FEET: 1075.86 ELEVATION OF CASING HD. FLANGE FEET:

TOTAL DEPTH: 1434 PLUG BACK TOTAL DEPTH:

PRODUCING OR INJECTION INTERVAL(S) FOR THIS COMPLETION: 1434 open hole ROTARY TOOLS USED (INTERVAL) TO: CABLE TOOLS USED (INTERVAL):

DRILLING FLUID USED: WAS THIS WELL DIRECTIONALLY DRILLED? WAS DIRECTIONAL SURVEY MADE? WAS COPY OF DIRECTIONAL SURVEY FILED? DATE FILED:

TYPE OF ELECTRICAL OR OTHER LOGS RUN (LIST LOGS FILED WITH THE STATE GEOLOGIST): DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL - CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB. FT)	DEPTH SET	SACKS CEMENT	AMOUNT PULLED
long string	7 7/8	5 1/2	14	1434		

TUBING RECORD

LINER RECORD

SIZE	DEPTH SET	PACKER SET AT	SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
2 7/8	1345 FEET	1320 FEET	INCH	FEET	FEET		FEET

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

NUMBER PER FEET	SIZE AND TYPE	DEPTH INTERVAL	AMOUNT AND KIND OF MATERIAL USED	DEPTH INTERVAL
open hole				

INITIAL PRODUCTION

DATE OF FIRST PRODUCTION OR INJECTION: 6 1 93 PRODUCING METHOD (INDICATE IF FLOWING, GAS LIFT, OR PUMPING - IF PUMPING, SHOW SIZE AND TYPE OF PUMP.):

DATE OF TEST: HOURS TESTED: CHOKE SIZE: OIL PRODUCED DURING TEST: GAS PRODUCED DURING TEST: WATER PRODUCED DURING TEST: OIL GRAVITY: API (CORR.):

TUBING PRESSURE: CASING PRESSURE: CALC'ED RATE OF PRODUCTION PER 24 HOURS: OIL: GAS: WATER: GAS OIL RATIO:

DISPOSITION OF GAS (STATE WHETHER VENTED, USED FOR FUEL OR SOLD):

METHOD OF DISPOSAL OF MUD PIT CONTENTS:

CERTIFICATE: I, THE UNDERSIGNED, STATE THAT I AM THE President OF THE Delphi International Inc COMPANY, AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT, AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DATE: 7 7 93 SIGNATURE: *Wol Atthu*

RECEIVED
JUL 12 1993
MO Oil & Gas Council

INSTRUCTIONS: ATTACH DRILLERS LOG OR OTHER ACCEPTABLE LOG OF WELL.

* SHOW ALL IMPORTANT ZONES OF POROSITY, DETAIL OF ALL CORES, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION (SEE * ABOVE)
			This well was not deepened

LABORATORIES CHEMICAL & MECHANICAL TEST REPORT

CUSTOMER <u>Delphi International, Inc.</u>		ORDER NUMBER
DATE RECEIVED <u>2/1/89</u>	SPECIFICATION	
SHIPPER NUMBER	MATERIAL TYPE <u>Bartlesville Water</u>	
FORWARD TEST RESULTS TO: (NAME & ADDRESS)		
<u>William C. Athens 810 Utica Bank Tower Tulsa, OK 74104</u>		

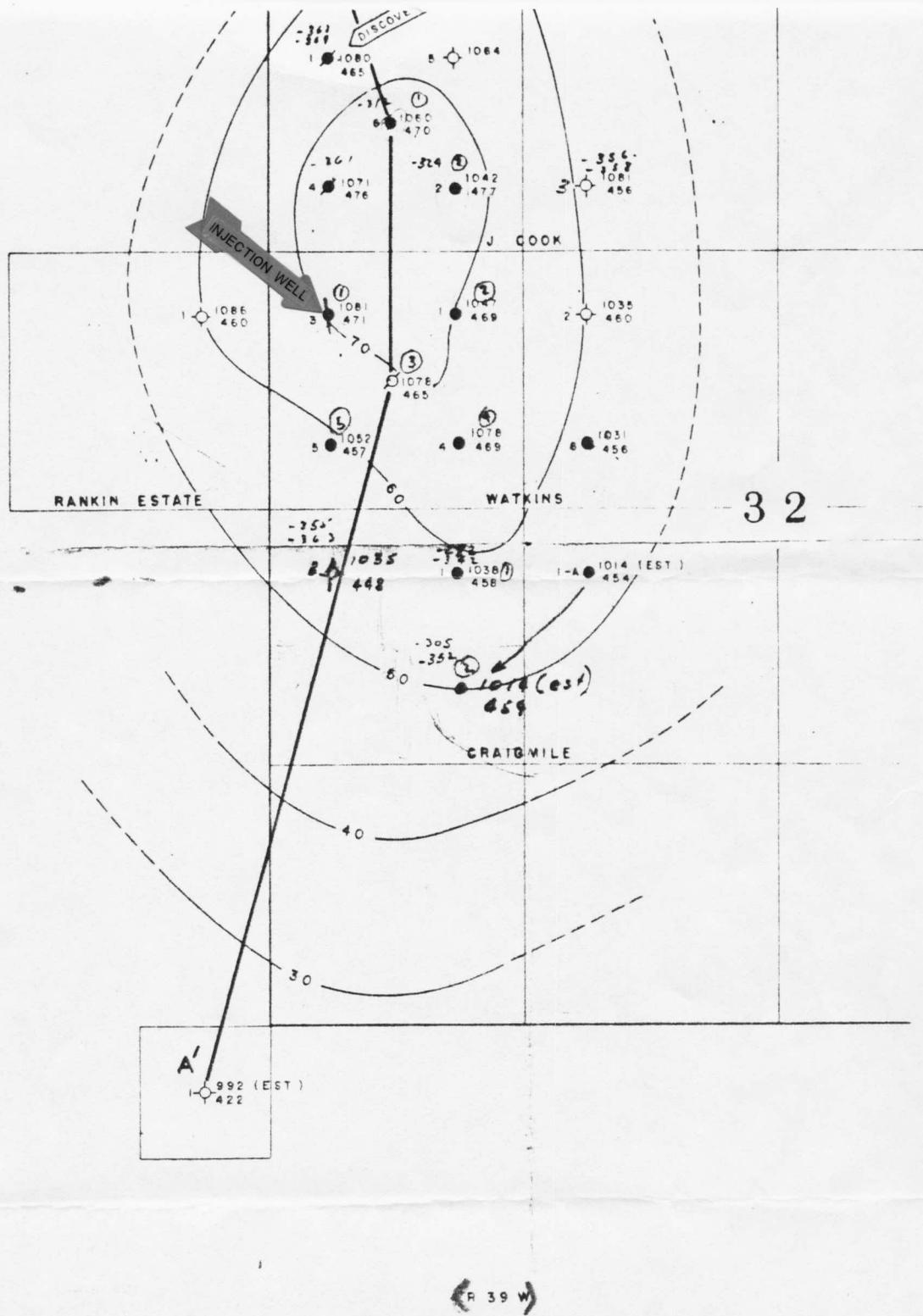
CHEMICAL ANALYSIS

SPECIMEN NUMBER	ELEMENTS TESTED								IDENTIFIED AS

MECHANICAL TEST

SPECIMEN NUMBER	ELONGATION (%)	REDUCTION OF AREA (%)	YIELD STRENGTH (PSI)	ULTIMATE STRENGTH (PSI)

COMMENTS	
Oil & Grease (mg/l) = 12	<p style="text-align: center; font-size: 2em; font-weight: bold;">RECEIVED</p> <p style="text-align: center; font-size: 1.2em; font-weight: bold;">FEB 16 1989</p> <p style="text-align: center;">MO Oil & Gas Council Economic Geology</p>
T.S.S. (mg/l) = 30.0	
pH (Std.) = 7.85	
Sulfates (mg/l) = 158	
Chlorides (mg/l) = 2602	
Bartlesville Water, 1450 feet, sec 32, P65N, R39W	
Atchison County, Missouri	<p style="text-align: right;">APPROVAL/DATE <i>[Signature]</i> 2-7-89</p> <p style="text-align: center; font-size: 0.8em;">je</p>



T 65 N
T 64 N

A'
992 (EST)
422

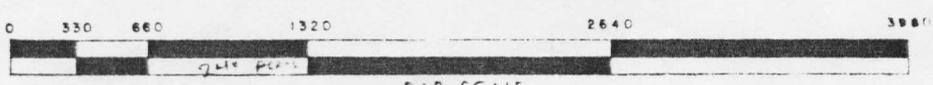
(R 39 W)

EXPLANATION

- ⊕ DRY HOLE
- OIL WELL
- ⊘ ABANDONED OIL WELL
- ⊖ TEMPORARILY PLUGGED AND ABANDONED
- ELEVATION OF HOLE
- ELEVATION OF TOP OF LANSING GROUP
- HOLE NUMBER

RECEIVED
FEB 16 1989
MO Oil & Gas Council
Economic Geology

STRUCTURE
OF LANSING
CONTOUR INTER
GEOLOGY BY
COMPANY: MI
WA
DATE SEPT



BAR SCALE
SCALE: FEET

FIVE



Delphi International, Inc.

WILLIAM C. ATHENS

1924 SOUTH UTICA, SUITE 810, TULSA, OKLAHOMA 74104 U.S.A.

TEL. (918) 747-1948 (918) 749-9401

FAX (918) 743-6103

!-03-92

Ken Deason
Missouri Dept. of Natural Resources
P. O. Box 250
Rolla, Missouri 65401

RE: Tarkio Field

Ken,

In reply to your letter of November 6th please be advised that the only records that I have on the Tarkio Field have come from your office in Rolla. I inherited no data with the purchase of the data. I assume Carter-Waters had no data to give me. I therefore have no cementing records of the Watkins #3, our injection well(to Be). I assume, since the well is an open hole completion that there is about 75 sacs of cement around the 5 1/2 casing.

WE are in the process of converting to a disposal well and have been given 180 days by the NPDES to comply.

I will forward a MIT on the Watkins well as we get closer. Poly pipe is being installed now. We are waiting on a rig to deepen 50'.

Thank you for your help.

Respectfully,



William C. Athens

RECEIVED JAN 08 1992

RECEIVED JAN 08 1992

MECHANICAL INTEGRITY TEST REPORT

RECEIVED

SEP 10 1999

MO Oil & Gas Council

Test Date: 8/24/99

Operator: H&R WELL SERVICES, INC
Contact Person: DAVE REBOL
Address: 17509 RD 14 FORT MORGAN, CO 80701
Phone: 970-867-2730

Lease WATKINS Well # 3
County ATCHISON Permit # 20046

TEST INFORMATION:

Type MIT: Pressure x Radioactive Tracer Survey Temperature Survey

Start Time: Run #1 1:10pm Run #2 Run #3
End Time: 1:40pm

Length of Test: 30 MIN
(Start Time minus End Time)

Initial Pressure (PSI): 320#
Ending Pressure (PSI): 312#

Pressure Change: 8#
(Initial Pressure minus Ending Pressure)

Fluid used for test (water, nitrogen, CO2, ect.): WATER

Comments about test:

The bottom of the tested zone is shut in with
at a depth of ft. In signing the form below, it is certified
that the above indicated well was tested for mechanical integrity on the
date shown at the top of this page.

Signed: Dave Rebol VP
Operator Contact Person or Title
Approved Agent

DO NOT WRITE BELOW THIS LINE

Results were: Satisfactory x Not Satisfactory
State Agent: SHERRI STONER Witnessed: Yes x No

REMARKS:

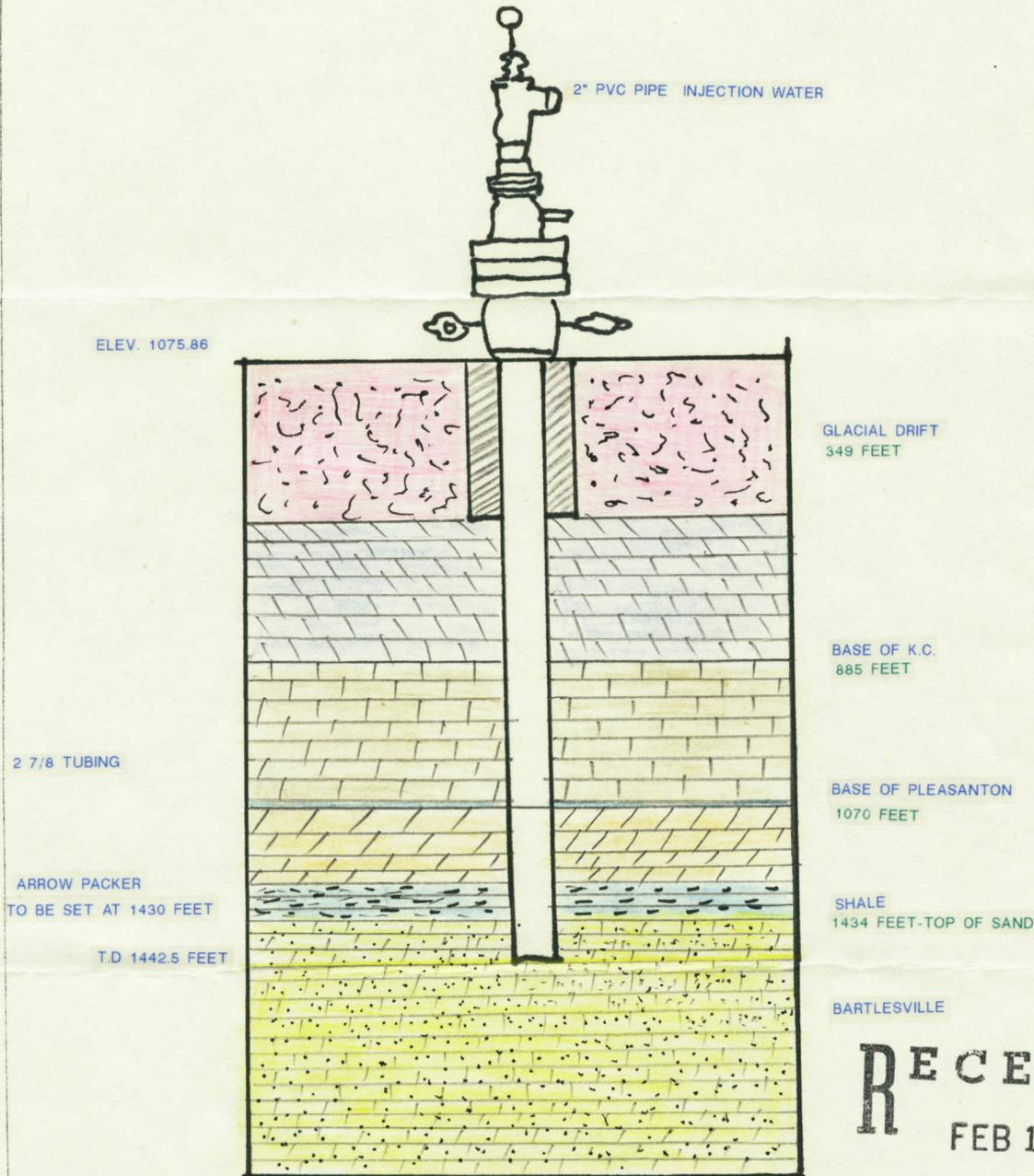
Computer Update 8/25/99

FILE WITH PERMIT!

Missouri Oil and Gas Council
INJECTION WELL SCHEMATIC

Form OGC-11

SET 5 1/2" CASING AT 1434
CEMENTED
DRILLED OUT OF CEMENT
AND 6 FEET INTO FORMATION
SHOT WITH NITRO



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FEB 16 1989

MO Oil & Gas Council
Economic Geology

Instructions

On the above space draw a neat accurate schematic diagram of the applicant injection well including the following: configuration of well head, total depth or plug back total depth, depth of all injection or disposal intervals, and their formation names, lithology of all formations penetrated, depths of the tops and bottoms of all casing and tubing, size and grade of all casing and tubing, and the type and depth of packer, depth, location, and type of all cement, depth of all perforations and squeeze jobs, and geologic name and depth to bottom of all underground sources of drinking water which may be affected by the injection. Use back if additional space is needed, or attach sheet.

AFFIDAVIT OF PUBLICATION

PUBLIC NOTICE

Delphi International, of 1924 South Utica, Suite 810, Tulsa, Okla. 74104, has applied for a Water Injection Well Permit to be completed at an approx. depth of 1,434 feet. At a location 165' from the West line and 1,485' from the North line of Section 32, Township 65 North, Range 39 West, in Atchison County, Mo.

Written comments or requests for additional information regarding such well should be directed within fifteen (15) days of this notice to:

State Geologist, Missouri Oil and Gas Council, PO Box 250, Rolla, Mo. 65401. 1c

Nancy M. Gaines, being duly sworn according to law, says that he is the publisher (or editor) of The Fairfax Forum, a weekly newspaper located, printed and published in the City of Fairfax, in Atchison county, Missouri; that said newspaper, for a period of three years and more prior to the date of the first insertion of the publication herein referred to, was, ever since said date has been, and now is published regularly and consecutively; that during all said time said newspaper has been, and now is, a newspaper of general circulation in said county; that during all said time said newspaper has been and now is admitted to the postoffice as second class matter in said City of Fairfax, the city of publication; that during all said time said newspaper has had, and now has, a list of bona fide subscribers voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time; that said newspaper, during all said time, has complied with and now complies with the provisions of an Act of the 62nd General Assembly of the State of Missouri, entitled "Public Advertisements", approved August 2nd, 1943, and known as Section 14968, and that said notice was in all respects published in compliance with the provisions of said section; and that the said notice hereto attached was published in said newspaper once a week for *ONE* consecutive weeks as follows:

In Vol. *99* No. *41* Dated *Oct. 10*, 19*91*

In Vol. No. Dated, 19.....

In Vol. No. Dated, 19.....

In Vol. No. Dated, 19.....

Nancy M. Gaines
Publisher (or Editor)

Subscribed and sworn to before me this *15th* day of *November*, 19*91*

[Signature]
Notary Public

SEAL My Commission Expires *March 1, 1993*

Publisher's Fee: \$.....