ARIZONA DEPARTMENT OF WATER RESOURCES
500 North 3rd Street
Phoenix, Arizona 85004

34-2464

RECEIVED
RECORDS MGT

WELL DRILLER REPORT

This report should be prepared by the driller in all detail and filed with the Department within 30 days following completion of the well.

1. LAYNE CHRISTENSEN COMPANY
12030 EAST RIGGS ROAD
CHANDLER, AZ 85249-3710

2. Owner Name: CITY OF TUCSON
Address: TUCSON (City) AZ (State) 85726 (Zip)

3. Location: 14S (Township) N/S 11E (Range) E/W 8 (Section) ¼ SW (10-acre) ¼ SW (40-acre) ¼ SE (160-acre)

4. Well Registration No. 55-583987 (Required)

5. Permit No. _____ (If Issued)

DESCRIPTION OF WELL

6. Total depth of hole 50 ft.
7. Type of casing 2" LCS & 2" PVC.
8. Diameter and length of casing 2" LCS in. from 0 to 20, 2" PVC in from 20 to 25
9. Method of sealing at reduction points _____
10. Perforated from 25 to 50, from _____ to _____ from _____ to _____
11. Size of cuts .020 Number of cuts per foot 288
12. If screen was installed: Length 25 ft. Diam 2" SCH-40 PVC in. Type FACTORY SLOTTED
13. Method of construction DRILLED
(drilled, dug, driven, bored, jetted, etc)
14. Date started 11 (Month) 27 (Day) 00 (Year)
15. Date completed 12 (Month) 1 (Day) 00 (Year)
16. Depth to water _____ ft. (If flowing well, so state)
17. Describe point from which depth measurements were made, and give sea_level elevation if availabl
_____
18. If flowing well, state method of flow regulation: _____
19. Remarks: WR-411 B

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Registration No. 55- 583987
File No. D(14-11) 8 DCC
Received _____ By _____
Entered _____ By _____

DWR-55-55-7/95 (Rev.)

RECEIVED DEC 2 8 2000

LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
0	50	SAND, GRAVEL

I hereby certify that this well was drilled by me (or under by supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller Name: LAYNE CHRISTENSEN COMPANY

12030 EAST RIGGS ROAD
Street

CHANDLER, AZ 85249-3710
City State Zip Phone No.

Signature of Driller Date

ARIZONA DEPARTMENT OF WATER RESOURCES

GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street
Phoenix, Arizona 85004

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-583987

AUTHORIZED DRILLER: LAYNE CHRISTENSEN COMPANY LICENSE NO: 7

NOTICE OF INTENTION TO DRILL A PIEZOMETER WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: CITY OF TUCSON - TUCSON WATER PO BOX 27210 TUCSON, AZ 85726

The well(s) is/are to be located in the:

SW ¼ of the SW ¼ of the SE ¼ Section 8 Township 14 SOUTH Range 11 EAST

No. of wells in this project: 1

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 18TH DAY OF OCTOBER, 2001

ARD

GROUNDWATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING

GREAT SEAL OF THE STATE OF ARIZONA
DITAT DEUS
1912

ARIZONA DEPARTMENT OF WATER RESOURCES
500 North 3rd Street, Phoenix, Arizona 85004
Telephone (602) 417-2470
Fax (602) 417-2422

October 31, 2000

JANE DEE HULL
Governor

RITA PEARSON MAGUIRE
Director

CITY OF TUCSON - TUCSON WATER
PO BOX 27210
TUCSON, AZ 85726

Registration No. 55-583987
File No. D(14-11) 8 DCC

Dear Well Owner:

Enclosed for your records is an annotated copy of the Notice of Intention to Drill a well. This is returned to you as evidence of compliance with A.R.S. §45-596. A drilling card has been mailed to your designated driller. Prior to drilling he must have it in his possession.

Since this well is being drilled as a Monitor well, or for Cathodic Protection, Grounding, Geotechnical or Piezometer purposes, our standard driller report form is also being furnished to the driller. He is required to complete it and return it to the Department within 30 days after the completion of the well. A Completion Report form is being furnished for monitor wells where pump installation is authorized. This must be completed within thirty days of installation as required by A.R.S. §45-600.

A Change of Well Information form is enclosed for your future use . If you deem it necessary to change the location of the proposed well, please notify the Department on the enclosed form. A properly amended Drilling Card will then be issued and must be in possession of the driller before drilling begins. During the drilling of a new well, if it is determined that it must be abandoned, then a Well Abandonment Completion Report must be submitted per R12-15-816.F.

Per A.R.S. §45-593, the person to whom a well is registered shall notify this Department of a change of ownership of the well and/or information pertaining to the physical characteristics of the well, in order to keep the well registration file current and accurate.

Sincerely,

Toni Bergeman

Toni Bergeman
Water Resource Technician
Groundwater Management Support Section

Enclosures

WR-411A

ARIZONA DEPARTMENT OF WATER RESOURCES
GROUNDWATER MANAGEMENT SUPPORT SECTION

MAIL TO: P.O. BOX 458, PHOENIX, ARIZONA 85001-0458
FOR INFORMATION: CALL MONICA ORTIZ AT 602-417-2470

RECEIVED OCT 19 2000 GROUNDWATER MGT

NOTICE OF INTENTION TO DRILL MONITOR/PIEZOMETER WELL

PLEASE READ GENERAL INSTRUCTIONS AND CONDITIONS ON REVERSE SIDE OF THIS FORM BEFORE COMPLETING.

1. Well/land Location:

14 N/S 11 E/W 8
Township Range Section

SW ¼ SW ¼ SE ¼
10 Acre 40 Acre 160 Acre

2. Position location of the well on the land:

Latitude 32 ° 13 ' 12 "

Longitude 111 ° 14 ' 34 "

3. County: Pima

4. Owner of the well:

City of Tucson/Tucson Water
Name Contact: Bruce Prior
PO Box 27210
Mailing Address
Tucson
City State Zip

Telephone No. (520) 791-2689

5. Lessee of the land of wellsite:

N/A
Name

Mailing Address

City State Zip

Telephone No.

6. Owner of the Land of Wellsite:

City of Tucson
Name
P.O. Box 27210
Mailing Address
Tucson AZ 85726-7210
City State Zip

Telephone No. (520) 791-2689

7. Consulting firm:

N/A
Name

Contact Person

Telephone No.

8. Purpose of well drilled pursuant to this notice:

Monitor
Piezometer X

9. If for deepening or modifying, list well registration number:

55- N/A

FOR DEPARTMENT USE ONLY

File No. D(11-11) 8 dec.
Filed 10-19-00 By SO
Input By

DUPLICATE
Mailed 10/31/00 By
Registration 55- 583987
AMA/INA Tucson
W/S 09 S/B 15
mo.

10. Will this proposed well be associated with a permit: Yes XX **No**
If yes, Permit No. 71-578806

11. Construction will start:

11 01 2000
Month Day Year

12. Period well will remain in use:

20 ~~Months~~/Years

13. For monitoring wells, is pump equipment to be installed?

Yes No XX

(a) If yes, design pump capacity:

(b) What use will be made of the water:

14. Drilling Firm:

Layne Christensen
Name
12020 E. Riggs Rd
Mailing Address
Chandler AZ 85294
City State Zip
(480) 895-9336
Telephone No.
#7
DWR License Number
#A-04
ROC License Category

15. Proposed method of abandonment of well after project is completed: In accordance with R-12-16-816

, pursuant to R12-15-816.

16. Is this well to monitor existing contamination? No **Potential contamination:** No **Please explain:** Piezometer will monitor depth to possible perched vadose zone water.

17. If construction plans have been coordinated with Arizona Department of Environmental Quality, who is the agency contact? N/A

18. If construction plans have been coordinated with Arizona Department of Water Resources, who is the agency contact? N/A

19. WELL CONSTRUCTION PLAN:

a) Drilling method (mud rotary, hollow-stem auger, etc.) Hollow-stem auger

b) Borehole diameters: 9 inches from 0 feet to 50 feet.
_____ inches from _____ feet to _____ feet.

c) Casing materials (PVC, steel, hollow-stem auger, etc.)
material Steel diameter 2 inches from 0 feet to 20 feet.
material Steel diameter 2 inches from 20 feet to 25 feet.

d) Method of sealing at reductions N/A

e) Annular seal materials (cement, grout, etc.,); method of placement (tremied, circulated):
material Neat Cement method tremied from 0 feet to 20 feet.
material Bentonite pellets method tremied from 20 feet to 23 feet.

f) Filter packs (state material):
material Silica Sand (8x12) from 23 feet to 50 feet.
material _____ from _____ feet to _____ feet.

g) Perforations or screen specifications:
Type Perforated PVC from 25 feet to 50 feet.
Type _____ from _____ feet to _____ feet.

h) Method of well development (bail, air lift, surge) _____

i) Will surface or conductor casing extend above grade?: Yes XX No _____

20. Include detailed construction diagram showing expected water depth in feet below land surface, and details of vault, if specified.

I state that this Notice is filed in compliance with Rule A.A.C. R12-15-809, is complete and correct to the best of my knowledge and belief and that I understand the conditions set forth on this form.

Ralph P. Marra, Acting Chief Hydrologist [signature] 10-16-00

Typed or Printed Name and Title **Signature [✓] Land Owner [ ] Lessee of Wellsite, Title** **Date**

Necessary Steps and Instructions to Obtain Drilling Authority (Monitor/Piezometer Wells)

1. Arizona Revised Statues ("A.R.S.") § 45-596 provides that prior to drilling a monitor or piezometer well, a Notice of Intention to Drill must be filed with the Department. To assist you in understanding the substantive requirements for this application, copies of A.R.S. § 45-596 and Arizona Administrative Code ("A.A.C.") R12-15-810 are available thru the department bookstore.
2. Information to complete items 1, 2, and 3 may be available from your County Tax Receipt or your County Assessors Office.
3. Information to complete item 9 is available from your copy of the original Notice of Intent to Drill or our Records Division at (602)417-2405.
4. Information to complete items 11, 14 and 15 may be available from your driller.
5. If an individual other than the land owner or lessee signs this notice, an original **notarized** letter of authorization from the land owner/lessee, stating that the individual has permission to sign this specific Notice on his or her behalf, must accompany the Notice of Intention to Drill a Monitor/Piezometer Well.
6. Please complete two original notices with original signatures and include a $10.00 check or money order for the processing fee, in accordance with A.R.S. § 45-113. Submit them to: P.O. Box 458, Phoenix, Arizona 85001-0458.

TIME FRAME FOR REVIEW OF YOUR APPLICATION

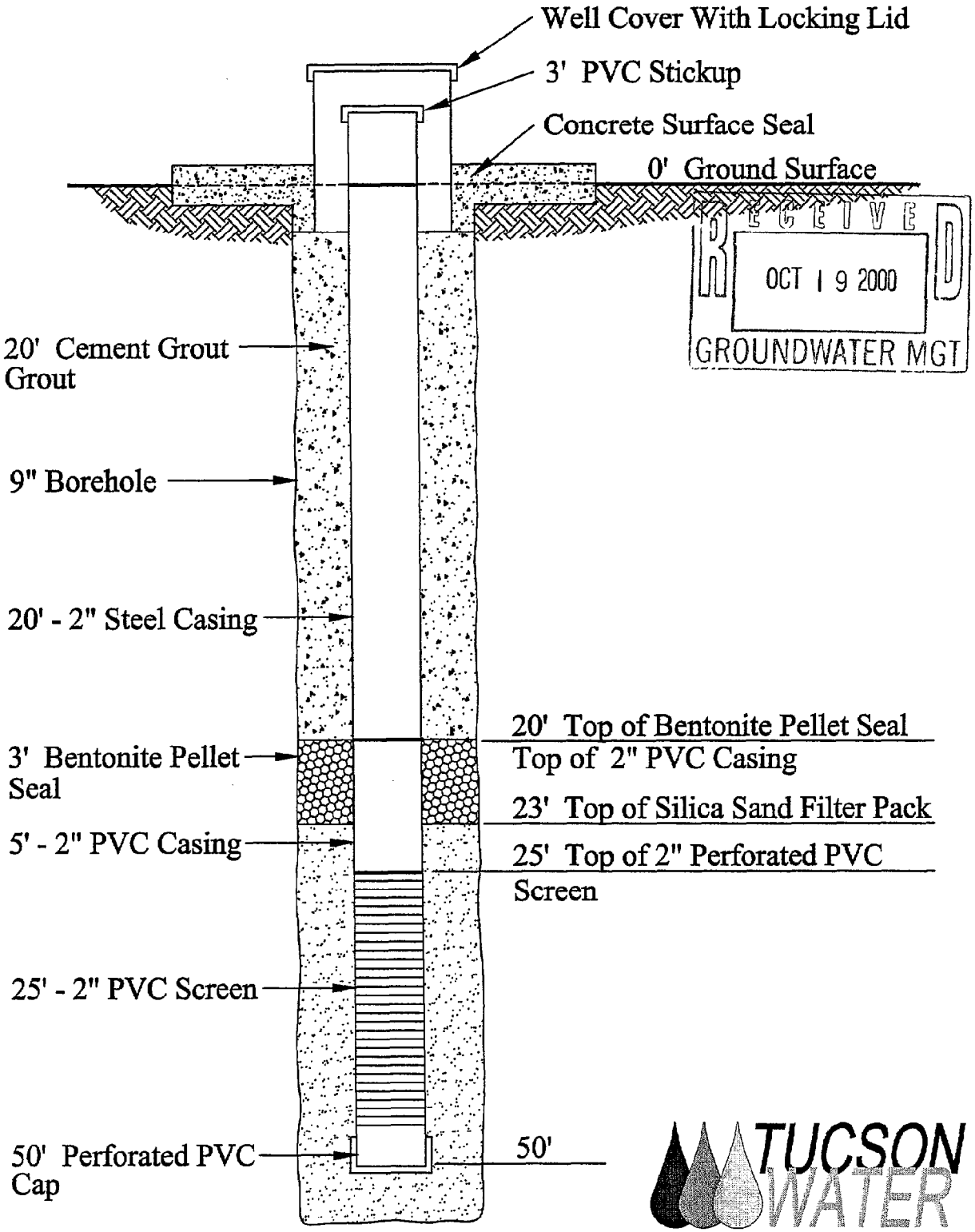
Within 15 days after receipt of your Notice of Intention, the Arizona Department of Water Resources ("Department") will determine whether your application should be granted or denied, unless this time is extended for lack of a complete application. If your application is incomplete, the Department will notify you in writing and will specify what information is necessary to make the application complete. Until the missing information is received, the time frame for review of your application will be suspended. Your application will not be complete until all of the requested information is received. If you do not supply the missing information within sixty (60) days, the Department may deem your application withdrawn and close the file.

At the end of its review, the Department will send you written notice either granting or denying your application for drilling authority. If your application is approved, the Drill Card will be mailed directly to the drilling company. If denied, the Department's notice will state justification for the denial and an explanation of your right to appeal.

Construction and Follow-up Requirements

1. Construction and abandonment standards for all wells must be in accordance with Department Rules.
2. A.A.C. Rule R12-15-811(H)(2) requires a monitor well to be identified as such on the vault cover or at the top of the steel casing. Identification information must include the well registration number.
3. Pursuant to A.R.S. § 45-596(E), drilling, deepening or modification of the well must be completed within one year after the date of the Notice of Intent.
4. A Well Driller Report is required within thirty (30) days of completion of drilling. Within thirty (30) days after installation of pumping equipment in monitor wells, a Completion Report must be filed with the Department.
5. Pump equipment may not be installed on a well drilled for piezometer purposes. If a monitor well is pumped, pumping is limited to the maximum amount required for monitor purposes, but in no case may exceed 35 gallons per minute and an annual total volume of 10 acre feet.
6. Special construction standards required pursuant to A.A.C. Rule R12-15-821: _____

Well Construction Diagram



RECEIVED
OCT 19 2000
GROUNDWATER MGT

TUCSON WATER

Not to Scale

TUCSON WATER

Tucson Water Department

RECEIVED
OCT 19 2000
GROUNDWATER MGT

October 16, 2000

ATTN: Mr. Al Ramsey
Groundwater Management Support Section
Arizona Department of Water Resources
P.O. Box 458
Phoenix, Arizona 85001-0458

Subject: Filing of Six Notices of Intention to Drill Monitor/Piezometer Wells

Dear Mr. Ramsey:

The Water Department intends to drill six shallow vadose zone piezometers in order to monitor potential perched water. The six piezometers are within the Clearwater (a.k.a. CAVSARP) facility in Avra Valley. Please find attached the above mentioned Notices of Intention (NOI) with construction diagrams. Also included is a Money Order (#068360700) for sixty dollars ($60.00) to cover the processing fee for the NOI's. The drilling company, Layne Christensen, will begin drilling these piezometers as soon as drill cards are received from your office.

If you have any question regarding these NOI's, please direct your inquiry to Bruce Prior at (520) 791-2689.

Sincerely,

Ralph P. Marra
Acting Chief Hydrologist

RM:BMP:adwr cavsarp NOI

Attachments

xc: Joe Babcock, Mike Sanders, Marie Light, Bruce Prior, Jeff Meyer (Errol L. Montgomery & Associates), Hydrology File

(520) 791-2666 • FAX (520) 791-3293 • P.O. BOX 27210 • TUCSON, AZ 85726-7210

ARIZONA DEPARTMENT OF WATER RESOURCES
GROUNDWATER MANAGEMENT SUPPORT SECTION

MAIL TO: P.O. BOX 458, PHOENIX, ARIZONA 85001-0458
FOR INFORMATION: CALL MONICA ORTIZ AT 602-417-2470

RECEIVED
OCT 19 2000
GROUNDWATER MGT

NOTICE OF INTENTION TO DRILL MONITOR/PIEZOMETER WELL

PLEASE READ GENERAL INSTRUCTIONS AND CONDITIONS ON REVERSE SIDE OF THIS FORM BEFORE COMPLETING

1. Well/land Location:

14 N/S 11 E/W 8
Township Range Section

SW ¼ SW ¼ SE ¼
10 Acre 40 Acre 160 Acre

2. Position location of the well on the land:

Latitude 32 ° 13 ' 12 "

Longitude 111 ° 14 ' 34 "

3. County: Pima

4. Owner of the well:

City of Tucson/Tucson Water
Name Contact: Bruce Prior
PO Box 27210
Mailing Address
Tucson
City State Zip

Telephone No. (520) 791-2689

6. Owner of the Land of Wellsite:

City of Tucson
Name
P.O. Box 27210
Mailing Address
Tucson AZ 85726-7210
City State Zip

Telephone No. (520) 791-2689

7. Consulting firm:

N/A
Name

Contact Person

Telephone No.

8. Purpose of well drilled pursuant to this notice:

Monitor
Piezometer X

9. If for deepening or modifying, list well registration number:

55- N/A

10. Will this proposed well be associated wit a permit: Yes XX **No**
If yes, Permit No. 71-578806

11. Construction will start:

11 01 2000
Month Day Year

12. Period well will remain in use:

20 ~~Months~~/Years

13. For monitoring wells, is pump equipment to be installed?

Yes No XX

(a) If yes, design pump capacity:

(b) What use will be made of the water:

14. Drilling Firm:

he Christensen
20 E. Riggs Rd
g Address
iler AZ 85294
State Zip
895-9336
one No.
7
License Number
-04
icense Category
R-12-16-816

THE BACK OF THIS DOCUMENT CONTAINS A REFLECTIVE SECURITY MARK - HOLD AT AN ANGLE TO VIEW

MONEY ORDER

TUCSON OLD PUEBLO CREDIT UNION

068360700
Payable at Norwest Bank Grand Junction
Downtown, N.A., Grand Junction, Colorado
82-40/1021

PAY EXACTLY
NOT GOOD OVER $1,000

DATE Oct.16,2000

PAY TO THE ORDER OF AZ Dept. of Water REsources, Groundwater Mgmt. Support Section

City of Tucson/Tucson Water
PURCHASER'S ADDRESS
P.O. Box 27210, Tsn,AZ 85726-7210
Issued by Integrated Payment Systems Inc., Englewood, Colorado

Bruce M Prior
PURCHASER, BY SIGNING YOU AGREE TO THE TERMS ON THE REVERSE SIDE.

[redacted]

_____, pursuant to R12-15-816.

16. Is this well to monitor existing contamination? NO **Potential contamination:** NO **Please explain:** Piezometer will monitor depth to possible perched vadose zone water.

17. If construction plans have been coordinated with Arizona Department of Environmental Quality, who is the agency contact? N/A

18. If construction plans have been coordinated with Arizona Department of Water Resources, who is the agency contact? N/A

DWR-55-44a (Rev 1/99)

City of Tucson

VARIANCE CHECKLIST - HYDROLOGY

DATE RECEIVED 10/19/00
DATE TO HYDRO 10/25/00
DATE TO GMSS 10-26-00

POTENTIAL REG. Nº 55-_____

55-583987 THRU 55-583992

FRONT OF N.O.I COMPLETE/CORRECT: YES ✓ NO ____

VARIANCE (?) LETTER RECEIVED	YES ____	NO ✓
WELL DIAGRAM (?) RECEIVED	YES ✓	NO ____
SITE PLAN (?) RECEIVED	YES ____	NO ✓

TYPE AND NUMBER OF WELLS:

____	MONITOR	____	CATHODIC PROTECTION
6	PIEZOMETER	____	GROUNDING
____	GEOTECHNICAL	____	HEAT PUMP
____	MINERAL EXPLORATION		
____	WATER PRODUCTION	____	OTHER _____

DESCRIBE TYPE OF WELL

VARIANCE:

____	REQUIRED	____	GRANTED
✓	NOT REQUIRED	____	NOT GRANTED
		____	LETTER ISSUED

ATTENTION!!! NOTICE OF INTENT TEAM:

____ HARD COPY OF LETTER TO FOLLOW
____ CALL FOR PICKUP

COMMENTS: OK - bah

NOI Variance Checklist for Hydrology - 01/12/00

HB