



**Arizona Department of Water Resources**  
 Information Management Unit  
 P.O. Box 458 • Phoenix, AZ 85001-0458  
 (602) 771-8627 • (800) 352-8488  
 www.azwater.gov

**Well Owner's  
 Notification of Abandonment**

**NO FEE**

- ❖ Review the instructions prior to completing the form in black ink.
- ❖ The owner or operator of any well shall notify the Department, in writing, no later than 30 days after the abandonment has been completed.  
 (A.R.S. § 45-594, A.A.C. R12-15-816(K))

**RECEIVED**  
**OCT 17 2007**  
**INFO MGMT**

FILE NUMBER <i>AG-11007</i>
WELL REGISTRATION NUMBER 55 - 506171

**\*\* PLEASE PRINT CLEARLY \*\***

SECTION 1: DRILLING FIRM		SECTION 2: LOCATION OF WELL					
NAME <b>LAYNE CHRISTENSEN COMPANY</b>		WELL LOCATION ADDRESS (IF ANY) <b>SW of Bellview St. &amp; Granite Reef Rd.</b>					
DWR LICENSE NUMBER <b>7</b>		TOWNSHIP (NS)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
TELEPHONE NUMBER <b>(480) 895-9404</b>		FAX <b>(480) 895-8699</b>		<b>01 (N)</b>	<b>04 (E)</b>	<b>01</b>	<b>NW ¼ SE ¼ NE ¼</b>
DATE ABANDONMENT COMPLETED <b>8-29-07</b>		COUNTY ASSESSOR'S PARCEL ID NUMBER					
		BOOK <b>131</b>	MAP <b>09</b>	PARCEL <b>002-C</b>			
		COUNTY WHERE WELL IS LOCATED <b>Maricopa</b>					

SECTION 3: OWNER INFORMATION			
Well Owner		Landowner (if different from Well Owner)	
FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL <b>Motorola Inc.</b>		FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL <b>General Dynamics C4 Systems, Inc.</b>	
MAILING ADDRESS <b>2900 South Diablo Way, MD DW 196</b>		MAILING ADDRESS <b>8201 E. McDowell Rd</b>	
CITY / STATE / ZIP CODE <b>Tempe AZ 85282</b>		CITY / STATE / ZIP CODE <b>Scottsdale AZ 85257</b>	
CONTACT PERSON NAME AND TITLE <b>Terry Lockwood, Remediation Program Manager</b>		CONTACT PERSON NAME AND TITLE <b>Bob Perez, Chemical Operations Manager</b>	
TELEPHONE NUMBER <b>(602) 438-5696</b>	FAX	TELEPHONE NUMBER <b>(480) 441-2838</b>	FAX

*I state that this notice is filed in compliance with A.R.S. § 45-594 and A.A.C. R12-15-816 and is complete and correct to the best of my knowledge and belief.*

SIGNATURE OF WELL OWNER <i>Terry Lockwood</i>	DATE <i>9/20/07</i>
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## Well Abandonment Completion Report

- Review instructions prior to completing form in black or blue ink.
- The drilling firm or single well licensee must file this report within 30 days of completion of abandonment. (A.R.S. § 45-594, A.A.C. R12-15-816)

RECEIVED

DEC 19 2007

FILE NUMBER A(1-4) BDA
WELL REGISTRATION NUMBER 55 - 506171

\*\* PLEASE PRINT CLEARLY \*\*

### INFO MGMT

SECTION 1. REGISTRY INFORMATION						
<b>Location of Well</b>						
WELL LOCATION ADDRESS (IF ANY) SW of JOEFOSSEWAY GRANITE REEF						
TOWNSHIP (N/S) IN		RANGE (E/W) 4E		SECTION 1	160 ACRE NW ¼	40 ACRE SE ¼
10 ACRE NE ¼	COUNTY ASSESSOR'S PARCEL ID NUMBER BOOK 131   MAP 9   PARCEL 002C		LATITUDE 33° 27' 43.1" N Degrees Minutes Seconds		LONGITUDE 111° 54' 60" W Degrees Minutes Seconds	
LAND SURFACE ELEVATION AT WELL Feet Above Sea Level						
METHOD OF LATITUDE/LONGITUDE (CHECK ONE) <input type="checkbox"/> *GPS: Hand-Held						
<input type="checkbox"/> USGS Quad Map <input type="checkbox"/> Conventional Survey <input type="checkbox"/> *GPS: Survey-Grade						
*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE)						
<input checked="" type="checkbox"/> NAD-83 <input type="checkbox"/> Other (please specify):						

SECTION 2. OWNER INFORMATION	SECTION 3. ABANDONMENT AUTHORIZATION
<b>Well Owner</b>	<b>Drilling Firm</b>
FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL Motorola Inc.	NAME LAYNE CHRISTENSEN COMPANY
MAILING ADDRESS 2900 S. Diablo Way	DWR LICENSE NUMBER 7
CITY / STATE / ZIP CODE TOMBPE, AZ 85282	TELEPHONE NUMBER 480-895-9404
CONTACT PERSON NAME AND TITLE TOM LOCKWOOD, Remediation PM	FAX 480-895-8699
TELEPHONE NUMBER 602 952 3238	

DS

SECTION 4			
Questions	Yes	No	Explanation:
1. To your knowledge, is there any information that exists which indicates that the water in this well has been, may be or is contaminated?	X		IF YES, EXPLAIN (ATTACH ADDITIONAL PAGE IF NECESSARY) see attachment (on original)
2. Is there another well name or identification number associated with this well? (e.g., MW-1, PZ-4, Lot 29 Well, Smith Well, etc.)	X		IF YES, PLEASE STATE ST-3
3. Prior to abandonment, did the well have 20' of surface casing AND 20' of grout in the annular space surrounding the casing?	X		If no, was the top 20' of casing removed prior to setting the cement plug? <input type="checkbox"/> Yes <input type="checkbox"/> No
4. Was the well backfilled above the cement plug?	X		
5. Was the well casing video logged?		X	
6. Why was the well abandoned?			No longer needed. ST-3 81-7834

Well Abandonment Completion Report

WELL REGISTRATION NUMBER  
55 - 506171

**SECTION 5. ORIGINAL WELL CONSTRUCTION DESIGN** (attach additional page if needed)

Existing Borehole			Existing Casing (to the best of your knowledge)													
DEPTH FROM SURFACE		BOREHOLE DIAMETER (inches)	DEPTH FROM SURFACE		OUTER DIAMETER (inches)	MATERIAL TYPE (T)				PERFORATION TYPE (T)				SLOT SIZE IF ANY (inches)		
FROM (feet)	TO (feet)		FROM (feet)	TO (feet)		STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE		SLOTTED	IF OTHER TYPE, DESCRIBE
0	91.5	48	0	21		X					X					
			21	64			X				X					
			64	104			X						X			.125

Condition of casing:  Good  Fair  Poor

**Existing Annular Material (to the best of your knowledge)**

DEPTH FROM SURFACE		ANNULAR MATERIAL TYPE (T)							FILTER PACK			
FROM (feet)	TO (feet)	NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE			IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	SAND	GRAVEL	SIZE
						GROUT	CHIPS	PELLETS				
0	21		X									
21	70										X	1/4"
70	105.5										X	1/4"

**SECTION 6. ACTUAL WELL ABANDONMENT DESIGN** (attach additional page if needed)

Refer to ADWR's Well Abandonment Handbook for additional information. DEPTH TO WATER: 1125 Feet Below Land Surface DATE ABANDONMENT COMPLETED: 8/29/07

Casing Treatment						Sealing or Fill Material													
DEPTH FROM SURFACE		TREATMENT TYPE (T)				DEPTH FROM SURFACE		MATERIAL TYPE (T)							MIXING RATIO by (check one) <input type="checkbox"/> Weight <input type="checkbox"/> Volume	VOLUME OF MATERIAL USED (cubic feet)			
FROM (feet)	TO (feet)	SONAR JET	BRUSH OR SCRAPE	MILLS KNIFE	CASING REMOVAL (explain in Remarks)	IF OTHER TYPE, DESCRIBE OR IF CASING WAS PERFORATED, DESCRIBE SPACING AND SIZE OF PERFORATIONS THAT WERE ADDED	FROM (feet)	TO (feet)	NEAT CEMENT	CONCRETE	SAND-CEMENT GROUT	CEMENT-BENTONITE GROUT	SAND-BENTONITE GROUT	GROUT			CHIPS	PELLETS	SAND
0	1					Cut off	0	1	X										
							1	97.4				X							
							97.4	104	FILL NOT REMOVED										

<b>Actual Abandonment Method</b> (See Well Abandonment Handbook) CHECK ONE <input type="checkbox"/> Standard Method <input type="checkbox"/> Alternative 1 <input type="checkbox"/> Alternative 2 <input checked="" type="checkbox"/> Alternative 3 <input type="checkbox"/> Alternative 4: <input type="checkbox"/> Variance Option <input type="checkbox"/> Alternative 5: <input type="checkbox"/> Variance Option 1 <input type="checkbox"/> Variance Option 2 <input type="checkbox"/> Other (please specify):	<b>Emplacement Method of Sealing or Fill Material</b> CHECK ONE <input type="checkbox"/> Gravity <input type="checkbox"/> Pressure Grouting <input checked="" type="checkbox"/> Tremie Pumped <input type="checkbox"/> Other (please specify):
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REMARKS

I state that this notice is filed in compliance with A.R.S. § 45-594 and A.A.C. R12-15-816 and is complete and correct to the best of my knowledge and belief.

TYPE OR PRINT NAME AND TITLE: James M. Havelodon, District Manager SIGNATURE OF QUALIFYING PARTY: [Signature] DATE: 12/11/07

ST-3

\* 02-27-2007



ARIZONA DEPARTMENT OF WATER RESOURCES  
 Records Management Section  
 P.O. Box 458, Phoenix, Arizona 85001-0458  
 (602) 771-8527 \* (800) 352-8488  
 www.water.az.gov

## Well Abandonment Completion Report

- Review instructions prior to completing form
- The drilling firm or single well licensee must file this report within 30 days of completion of abandonment (A.R.S. § 45-594, A.A.C. R12-15-816)

\*\* PLEASE PRINT CLEARLY \*\*

**RECEIVED**

**SEP 26 2007**

**INFO MGMT**

FILE NUMBER	A(1-4) BDA
WELL REGISTRATION NUMBER	55- 506171

SECTION 1 ABANDONMENT AUTHORIZATION	
<b>Drilling Firm</b>	
NAME LAYNE CHRISTENSEN COMPANY	DWR LICENSE NUMBER 7
ADDRESS 12030 EAST RIGGS ROAD	TELEPHONE NUMBER 480-895-9336
CITY / STATE / ZIP CHANDLER, AZ 85249-3701	FAX

### SECTION 2 REGISTRY INFORMATION

Well Owner Information	
FULL NAME OF COMPANY, ORGANIZATION OR INDIVIDUAL MOTOROLA INC	CONTACT PERSON NAME AND TITLE
MAILING ADDRESS 3102 N 56TH ST MD56-128	TELEPHONE NUMBER 602-952-3238
CITY / STATE / ZIP PHOENIX, AZ 85018	FAX

Location of Well	
WELL LOCATION ADDRESS (IF ANY)	LATITUDE Degrees    Minutes    Seconds    "N LONGITUDE Degrees    Minutes    Seconds    "W
TOWNSHIP (N/S) RANGE (E/W) SECTION 1N    4E    1	LAND SURFACE ELEVATION AT WELL Feet Above Sea Level
180 ACRE    40 ACRE    10 ACRE NW 1/4    SE 1/4    NE 1/4	METHOD OF LATITUDE / LONGITUDE (CHECK ONE) <input type="checkbox"/> USGS Quad Map <input type="checkbox"/> Conventional Survey <input type="checkbox"/> *GPS: Hand-Held <input type="checkbox"/> *GPS: Survey-Grade
COUNTY ASSESSOR'S PARCEL ID NUMBER BOOK    MAP    PARCEL 131    9    002C	*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE) <input type="checkbox"/> NAD-83 <input type="checkbox"/> Other (please specify):

### SECTION 3

Questions	Yes	No	Explanation
1. To your knowledge, is there any information that exists which indicates that the water in this well has been, may be or is contaminated ?	X		IF YES, EXPLAIN (ATTACH ADDITIONAL PAGE IF NECESSARY) See Attachment
2. Is there another well name or identification number associated with this well? (e.g., MW-1, PZ-4, Lot 29 Well, Smith Well, etc.)	X		IF YES, PLEASE STATE St-3
3. Prior to abandonment, did the well have 20' of surface casing AND 20' of grout in the annular space surrounding the casing ?	X		If No, was the top 20' of casing removed prior to setting the cement plug ? <input type="checkbox"/> Yes <input type="checkbox"/> No
4. Was the well backfilled above the cement plug ?	X		
5. Was the well casing video logged ?		X	
6. Why was the well abandoned ?			No longer needed

Well Abandonment Completion Report

WELL REGISTRATION NUMBER  
55-506171

**SECTION 4 ORIGINAL WELL CONSTRUCTION DESIGN** (attach additional pages if needed)

Existing Borehole			Existing Casing (to the best of your knowledge)													
DEPTH FROM SURFACE		BOREHOLE DIAMETER (inches)	DEPTH FROM SURFACE		OUTER DIAMETER (inches)	MATERIAL TYPE (X)				PERFORATION TYPE (X)					SLOT SIZE IF ANY (inches)	
FROM (feet)	TO (feet)		FROM (feet)	TO (feet)		STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED		IF OTHER TYPE, DESCRIBE
0	91.5	48	0	21		X				X						
			21	64			X			X						
			64	104		X							X			0.125

Condition of casing:  Good  Fair  Poor

**Existing Annular Material** (to the best of your knowledge)

DEPTH FROM SURFACE		ANNULAR MATERIAL TYPE (X)							FILTER PACK		
FROM (feet)	TO (feet)	NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE			SAND	GRAVEL	SIZE
					GROUT	CHIPS	PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE			
0	21		X								
21	70									X	1/4 inch
70	105.5									X	1/4 inch

**SECTION 5 ACTUAL WELL ABANDONMENT DESIGN** (attach additional pages if needed)

Refer to ADWR's Well Abandonment Handbook for additional information.

DEPTH TO WATER: 77.25 Feet Below Land Surface  
DATE ABANDONMENT COMPLETED: 8-29-07

**G casing Treatment** / **Sealing or Fill Material**

G casing Treatment				Sealing or Fill Material													
DEPTH FROM SURFACE		TREATMENT TYPE (X)				DEPTH FROM SURFACE		MATERIAL TYPE (X)							MIXING RATIO by (check one) <input type="checkbox"/> Weight <input type="checkbox"/> Volume	VOLUME OF MATERIAL USED (cubic feet)	
FROM (feet)	TO (feet)	SONAR JET	BRUSH OR SCRAPER	MILLS KNIFE	CASING REMOVAL (explain in Remarks)	IF OTHER TYPE, DESCRIBE OR IF CASING WAS PERFORATED, DESCRIBE SPACING AND SIZE OF PERFORATIONS THAT WERE ADDED	FROM (feet)	TO (feet)	NEAT CEMENT	CONCRETE	CEMENT-BENTONITE GROUT	SAND-BENTONITE GROUT	HIGH SOLIDS BENTONITE				SAND
0	1					cut off	0	1	X								
							1	97.4		X							

**Actual Abandonment Method** (See Well Abandonment Handbook) / **Emplacement Method of Sealing or Fill Material**

<p>CHECK ONE</p> <p><input type="checkbox"/> Standard Method <input type="checkbox"/> Alternative 4: <input type="checkbox"/> Other (please specify)</p> <p><input type="checkbox"/> Alternative 1 <input type="checkbox"/> Variance Option</p> <p><input type="checkbox"/> Alternative 2 <input type="checkbox"/> Alternative 5:</p> <p><input checked="" type="checkbox"/> Alternative 3 <input type="checkbox"/> Variance Option 1 <input type="checkbox"/> Variance Option 2</p>	<p>CHECK ONE</p> <p><input type="checkbox"/> Gravity</p> <p><input type="checkbox"/> Pressure Grouting</p> <p><input checked="" type="checkbox"/> Tremie Pumped</p> <p><input type="checkbox"/> Other (please specify)</p>
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REMARKS

I state that this notice is filed in compliance with A.R.S. § 45-594 and A.A.C. R12-15-816 and is complete and correct to the best of my knowledge and belief.

TYPE OR PRINT NAME AND TITLE: \_\_\_\_\_ SIGNATURE OF QUALIFYING PARTY: *James S. Kroll* DATE: 8/26/07



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 Water Management Support Section  
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 www.azwater.gov

**Notice of Intent to  
 Abandon a Well**

**NO FEE**

- ❖ Review instructions and the Well Abandonment Handbook prior to completing form with black or blue ink.
- ❖ You **must** include with your Notice:
  - Well construction diagram showing all existing well construction features listed in Section 5 and the proposed abandonment specifications listed in Section 6.

**\*\* PLEASE PRINT CLEARLY \*\***

AMA P4P	B 6	SB	FILE NUMBER A(01-04)1 BDA
RECEIVED 12/07/06	DATE	WS 07	WELL REGISTRATION NUMBER
ISSUED 01-04-07	DATE	WQARF 002	55-506171
		CERCLA	

**SECTION 1. REGISTRY INFORMATION**

<b>Well Type</b> CHECK ONE		<b>Location of Well</b>					
<input type="checkbox"/> Domestic <input checked="" type="checkbox"/> Monitor / Piezometer <input type="checkbox"/> Stock <input type="checkbox"/> Geotechnical <input type="checkbox"/> Irrigation <input type="checkbox"/> Mineral Exploration <input type="checkbox"/> Municipal <input type="checkbox"/> Other (please specify):		WELL LOCATION ADDRESS (IF ANY) SW of Bellview St. & Granite Reef Rd					
		TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
		01 (N)	04 (E)	01	NW ¼	SE ¼	NE ¼
ORIGINAL WELL OWNER (IF KNOWN) Motorola Inc.		COUNTY ASSESSOR'S PARCEL ID NUMBER BOOK MAP PARCEL		COUNTY WHERE WELL IS LOCATED			
		131 09 002-C		Maricopa			
ORIGINAL WELL DRILLING FIRM (IF KNOWN) Weber Pump, Inc.		DRILL DATE (IF KNOWN) 8/11/1983		LATITUDE		LONGITUDE	
				Degrees Minutes Seconds "N"		Degrees Minutes Seconds "W"	
				METHOD OF LATITUDE/LONGITUDE (CHECK ONE)		<input type="checkbox"/> *GPS: Hand-Held	
				<input type="checkbox"/> USGS Quad Map <input type="checkbox"/> Conventional Survey <input type="checkbox"/> *GPS: Survey-Grade		*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE)	
				<input type="checkbox"/> NAD-83 <input type="checkbox"/> Other (please specify):			

**SECTION 2. OWNER INFORMATION**

<b>Well Owner</b>		<b>Landowner (if different from Well Owner)</b>	
FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL Motorola Inc.		FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL General Dynamics C4 Systems, Inc.	
MAILING ADDRESS 3102 North 56th St M/D 56-A128		MAILING ADDRESS 8201 E McDowell Rd	
CITY / STATE / ZIP CODE Phoenix/AZ/85018-6606		CITY / STATE / ZIP CODE Scottsdale AZ, 85257	
CONTACT PERSON NAME AND TITLE Terry Lockwood, Remediation Program Manager		CONTACT PERSON NAME AND TITLE Rick Flegel, Environmental Health and Safety Manager	
TELEPHONE NUMBER 602-952-3893	FAX	TELEPHONE NUMBER 480-441-5481	FAX 480-441-5067

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**SECTION 3. ABANDONMENT AUTHORIZATION**

<b>Drilling Firm</b>		<b>Consultant (if applicable)</b>	
NAME Layne Christensen		CONSULTING FIRM Errol L. Montgomery & Associates, Inc.	
DWR LICENSE NUMBER 7	ROC LICENSE CATEGORY C53, A, and A-4	CONTACT PERSON NAME Dennis Shirley	
TELEPHONE NUMBER 480-895-9404	FAX 480-895-8699	TELEPHONE NUMBER 480-948-7747	FAX 480-948-8737
		E-MAIL ADDRESS dshirley@elmontgomery.com	

**SECTION 4.**

Questions	Yes	No	If Yes:
1. To your knowledge, is there any information that exists which indicates that the water in this well has been, may be, or is contaminated?	X		EXPLAIN (ATTACH ADDITIONAL PAGE IF NECESSARY) see attached letter from US EPA
2. Is there another well name or identification number associated with this well? (e.g., Lot 3 Well, MW-1, etc.)	X		PLEASE STATE ST-3
3. Was the well casing video logged?		X	
4. Why is the well being abandoned?	No longer needed for monitoring		

**Notice of Intent to Abandon a Well**

WELL REGISTRATION NUMBER  
**55 - 506171**

Provide a well construction diagram showing all existing well construction features listed in Section 5 and the proposed abandonment specifications listed in Section 6.

Existing Borehole			Existing Casing (to the best of your knowledge)													
DEPTH FROM SURFACE		BOREHOLE DIAMETER (inches)	DEPTH FROM SURFACE		OUTER DIAMETER (inches)	MATERIAL TYPE ( T )				PERFORATION TYPE ( T )					SLOT SIZE IF ANY (inches)	
FROM (feet)	TO (feet)		FROM (feet)	TO (feet)		STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED		IF OTHER TYPE, DESCRIBE
0	91.5	48	0	21	12	X										
			0	64	6		X									
			64	104	6		X						X			0.125 x 3

Condition of casing:  Good  Fair  Poor

Existing Annular Material (to the best of your knowledge)												
DEPTH FROM SURFACE		ANNULAR MATERIAL TYPE ( T )							FILTER PACK			
FROM (feet)	TO (feet)	NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE			IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	SAND	GRAVEL	SIZE
						GROUT	CHIPS	PELLETS				
0	21		X									
21	70											1-1/4 inch
70	105.5										X	1/4 inch

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SECTION 6: PROPOSED WELL ABANDONMENT DESIGN DATE ABANDONMENT IS TO BEGIN  
Refer to ADWR's Well Abandonment Handbook for additional information. December 2006

Casing Treatment					Sealing or Fill Material														
DEPTH FROM SURFACE		TREATMENT TYPE ( T )				DEPTH FROM SURFACE		MATERIAL TYPE ( T )							MIXING RATIO by (check one) <input checked="" type="checkbox"/> Weight <input type="checkbox"/> Volume	ESTIMATE D VOLUME OF MATERIAL (cubic feet)			
FROM (feet)	TO (feet)	SONAR JET	BRUSH OR SCRAPE	MILLS KNIFE	CASING REMOVAL (explain in Remarks)	IF OTHER TYPE, DESCRIBE OR IF CASING IS TO BE PERFORATED, DESCRIBE SPACING AND SIZE OF PERFORATIONS TO BE ADDED	FROM (feet)	TO (feet)	NEAT CEMENT	CONCRETE	SAND-CEMENT GROUT	CEMENT-BENTONITE GROUT	SAND-BENTONITE GROUT	GROUT			CHIPS	PELLETS	SAND
0	4				X		4	105.5											31:1:17:22

<p><b>Proposed Abandonment Method</b> (See Well Abandonment Handbook)</p> <p>CHECK ONE</p> <p><input type="checkbox"/> Standard Method <input type="checkbox"/> Alternative 4: <input type="checkbox"/> Other (please specify):</p> <p><input type="checkbox"/> Alternative 1 <input type="checkbox"/> Variance Option *</p> <p><input type="checkbox"/> Alternative 2 <input type="checkbox"/> Alternative 5:</p> <p><input checked="" type="checkbox"/> Alternative 3 <input type="checkbox"/> Variance Option 1* * requires a letter requesting a variance</p> <p><input type="checkbox"/> Variance Option 2*</p>	<p><b>Emplacement Method of Sealing or Fill Material</b></p> <p>CHECK ONE</p> <p><input type="checkbox"/> Gravity</p> <p><input type="checkbox"/> Pressure Grouting</p> <p><input checked="" type="checkbox"/> Tremie Pumped</p> <p><input type="checkbox"/> Other (please specify):</p>
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REMARKS

I state that this notice is filed in compliance with A.R.S. § 45-594 and A.A.C. R12-15-816 and is complete and correct to the best of my knowledge and belief.

TYPE OR PRINT NAME AND TITLE	SIGNATURE OF WELL OWNER	DATE
	<i>Merry Lockwood</i>	11/2/06
TYPE OR PRINT NAME AND TITLE	SIGNATURE OF LANDOWNER, IF APPLICABLE (SEE INSTRUCTIONS)	DATE
	<i>Robert H. Hays</i>	11/6/06

**Notice of Intent to Abandon a Well**

WELL REGISTRATION NUMBER  
**55 - 506170**

Provide a well construction diagram showing all existing well construction features listed in Section 5 and the proposed abandonment specifications listed in Section 6.

**SECTION 5. ORIGINAL WELL CONSTRUCTION DESIGN** (attach additional page if needed)

Existing Borehole			Existing Casing (to the best of your knowledge)													
DEPTH FROM SURFACE		BOREHOLE DIAMETER (inches)	DEPTH FROM SURFACE		OUTER DIAMETER (inches)	MATERIAL TYPE ( T )				PERFORATION TYPE ( T )					SLOT SIZE IF ANY (inches)	
FROM (feet)	TO (feet)		FROM (feet)	TO (feet)		STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED		IF OTHER TYPE, DESCRIBE
0	91.5	48	0	21	12	X										
			0	64	6		X									
			64	104	6		X						X			0.125 x 3

Condition of casing:  Good  Fair  Poor

**Existing Annular Material** (to the best of your knowledge)

DEPTH FROM SURFACE		ANNULAR MATERIAL TYPE ( T )							FILTER PACK			
FROM (feet)	TO (feet)	NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE			IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	SAND	GRAVEL	SIZE
						GROUT	CHIPS	PELLETS				
0	21		X									
21	70										X	1-1/4 inch
70	105.5										X	1/4 inch

**SECTION 6. PROPOSED WELL ABANDONMENT DESIGN** (attach additional page if needed) DATE ABANDONMENT IS TO BEGIN

Refer to ADWR's Well Abandonment Handbook for additional information.

**December 2006**

Casing Treatment					Sealing or Fill Material																
DEPTH FROM SURFACE		TREATMENT TYPE ( T )				DEPTH FROM SURFACE		MATERIAL TYPE ( T )							MIXING RATIO by (check one) <input checked="" type="checkbox"/> Weight <input type="checkbox"/> Volume	ESTIMATE D VOLUME OF MATERIAL (cubic feet)					
FROM (feet)	TO (feet)	SONAR JET	BRUSH OR SCRAPE	MILLS KNIFE	CASING REMOVAL (explain in Remarks)	IF OTHER TYPE, DESCRIBE OR IF CASING IS TO BE PERFORATED, DESCRIBE SPACING AND SIZE OF PERFORATIONS TO BE ADDED	FROM (feet)	TO (feet)	NEAT CEMENT	CONCRETE	SAND-CEMENT GROUT	CEMENT-BENTONITE GROUT	SAND-BENTONITE GROUT	HIGH SOLIDS BENTONITE			GROUT	CHIPS	PELLETS	SAND	
0	4				X		4	105.5												31:1:17	22

**RECEIVED**

**Proposed Abandonment Method** (See Well Abandonment Handbook) **Emplacement Method of Sealing or Fill Material**

CHECK ONE  
 Standard Method  Alternative 4:  Other (please specify):  
 Alternative 1  Variance Option \*  
 Alternative 2  Alternative 5:  
 Alternative 3  Variance Option 1\* \* requires a letter requesting a variance  
 Variance Option 2\*

CHECK ONE  
 Gravity  
 Pressure Grouting  
 Tremie Pumped  
 Other (please specify):

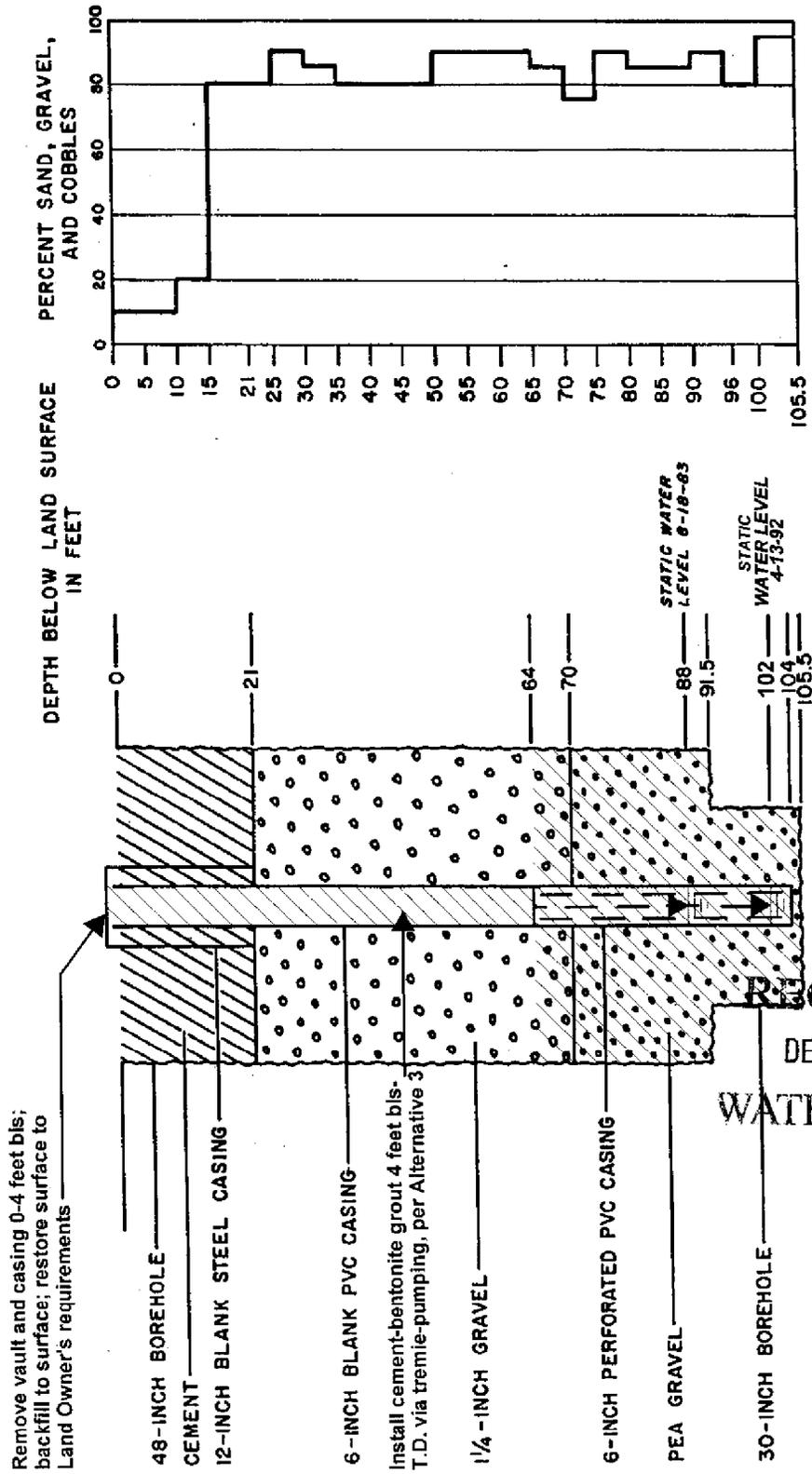
DEC - 7 2006

**WATER MGMT**

REMARKS

I state that this notice is filed in compliance with A.R.S. § 45-594 and A.A.C. R12-15-816 and is complete and correct to the best of my knowledge and belief.	
TYPE OR PRINT NAME AND TITLE	SIGNATURE OF WELL OWNER <i>Merry Rockwood</i> DATE 11/2/06
TYPE OR PRINT NAME AND TITLE	SIGNATURE OF LANDOWNER, IF APPLICABLE (SEE INSTRUCTIONS) DATE

506171



**SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND, GRAVEL, AND COBBLES IN SOIL SAMPLES FOR SOIL TEST BOREHOLE MONITOR WELL (A-1-4)1bd2 [ST-3]**



**ERROL L. MONTGOMERY & ASSOCIATES, INC.**  
TUCSON, ARIZONA

# Layne Christensen Company

12030 E. Riggs Road • Chandler, Arizona 85249-3701 • Phone: (480) 895-9336 • Fax: (480) 895-9536

Lori Cason  
Notice of Intent Unit Supervisor  
Arizona Department of Water Resources  
3550 N. Central Ave.  
Phoenix, AZ 85012

506171

## Re: Request for Variance from Surface Seal Requirements Outlined in R12-15-816 [H] for Notices of Intent to Abandon Wells:

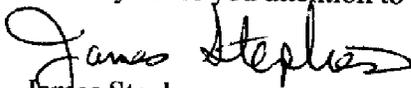
55-507305 (M-6UA)	55-507306 (M-7UA)	55-509768 (M-8UA)
55-509770 (M-12UA)	55-535462 (PG-14UA)	55-539543 (PG-35UA)
55-506170 (ST-2)	55-506171 (ST-3)	55-509769 (M-12MA)
55-526970 (PA-8LA)	55-805179 (E-11UA)	

Layne Christensen Company respectfully requests a variance from rule R12-15-816 [H]. The proposed method of abandonment for each of the above wells, except 55-805179 (E-11UA), is to emplace, via tremie-pumping, cement-bentonite grout from the total depth of the well to a depth of four (4) feet below land surface and to remove any existing well vault and casing(s) to a depth of four feet below land surface. The remaining hole will then be backfilled with soil, concrete, or asphalt depending upon the existing conditions at the well site.

E-11UA is an old irrigation well constructed of "stove-pipe" casing that consists of five-foot long joints. The casing has been extended about two or three feet above the original casing; the top of the original casing is currently at a depth of about two (2) feet below land surface. The well will be perforated from a depth 50 feet to a depth of seven (7) feet below land surface prior to installing cement-bentonite grout into the well via a tremie-line from the total depth of the well to a depth of seven (7) feet below land surface. Due to the likelihood that any attempt to pull the original casing will result in the casing breaking at the bottom of the first joint, we propose removal of the casing to a depth seven (7) feet below land surface. The remaining hole will then be backfilled with soil and covered with landscape gravel to match the existing conditions at the site.

This request is necessary to facilitate future land development at the well sites, and is appropriate as each of these wells was originally constructed with a surface seal extending from the land surface to a depth of 20 feet, which will be left intact.

Thank you for your attention to this request,



James Stephens  
Layne Christensen Company (ADWR Lic. #7)  
Environmental Division Manager

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**PARTICIPATING COMPANIES**

7949 East Acoma Drive, Suite 100  
Scottsdale, Arizona 85260  
480-948-7747 work phone  
480-948-8737 work fax

November 30, 2006

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Lori Cason  
Notice of Intent Unit Supervisor  
Arizona Department of Water Resources  
3550 N. Central Ave.  
Phoenix, AZ 85012

**Re: ABANDONMENT OF ELEVEN GROUNDWATER MONITOR  
WELLS, NORTH INDIAN BEND WASH SUPERFUND SITE**

Dear Ms. Cason:

North Indian Bend Wash Participating Companies (NIBW PCs) hereby request authorization from Arizona Department of Water Resources (ADWR) for the abandonment of 11 registered groundwater monitoring wells associated with the NIBW Superfund Site groundwater monitoring program (**Table 1; Figure 1**).

Nine of these wells have been approved by the United States Environmental Protection Agency (EPA) for abandonment (**Attachment A**) as there is no longer a need for continued monitoring of these wells. These wells, designated with "UA," are shallow monitoring wells completed in the Upper Alluvial Unit only, and therefore do not present a potential pathway for vertical cross-contamination between aquifer units. In addition, all of these wells, except E-11UA, were drilled specifically for monitoring purposes pursuant to A.A.C. R12-15-811 through R12-15-812, and are thus constructed to protect the aquifer.

The remaining two wells, M-12MA and PA-8LA, are to be abandoned due to proposed development at the sites. These wells will be replaced by new monitor wells to be drilled nearby in the future. Although these wells penetrate more than one aquifer, they were also drilled for monitoring purposes pursuant to A.A.C. R12-15-811 through R12-15-812. Thus, these wells also do not present a potential route for vertical cross-contamination between aquifer units.

Therefore, with the exception of E-11UA, we propose forgoing re-perforation of the well casings due to their original construction being consistent with A.A.C. R12-15-811 through 812. Well E-11UA is an irrigation well drilled in 1929 that was converted for use as a monitoring well in 1988. This well will receive additional casing treatments to ensure abandonment consistent with A.A.C. R12-15-816. Additional details regarding the proposed abandonment methods are provided in the enclosed Notice of Intent to Abandon applications.



506171

---

**PARTICIPATING COMPANIES**

7949 East Acoma Drive, Suite 100  
Scottsdale, Arizona 85260  
480-948-7747 work phone  
480-948-8737 work fax

Very truly yours,  
ERROL L. MONTGOMERY & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Dennis H. Shirley".

Dennis H. Shirley, P.G.

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DEC - 7 2006

**WATER MGMT**

cc: Jamey Watt, EPA  
Bill DePaul, ADEQ  
Don Atkinson, ADEQ  
Terry Lockwood, Motorola

Table 1. Summary of Well Construction and Location Information for NIBW Monitor Wells Proposed for Abandonment North Indian Bend Wash Area, Maricopa County, Arizona

Legal Description	ADWR Registration Number	Well Identifier	Completion Date	Depth Drilled (ft bis)*	Casing		Nearest Address	Detailed Location
					Diameter (inches)	Perforated Interval (feet bis)		
(A-1-4) 1acd	509768	M-8UA	03/ /85	125	4	0- 115	1108 North 85th Place	In Scottsdale School District right-of-way; east side of 85th Place, north of Roosevelt; currently buried under dirt and grass
1baa2	507305	M-6UA	08/ /84	125	4	0- 117	General Dynamics, at southeast corner of Hayden and McDowell	South of McDowell and west of Granite Reef Road; in the grassy area in front of General Dynamics building
1baa3	507306	M-7UA	05/ /84	125	4	0- 124	General Dynamics, at southeast corner of Hayden and McDowell	Inside plant area; northeast of Granite Reef guard gate
1bda1	506170	ST-2	08/ /83	125	6	0- 125	General Dynamics, at southeast corner of Hayden and McDowell	On the south side of General Dynamic's access road; north of Roosevelt and west of Granite Reef Road
1bda2	506171	ST-3	08/ /83	105.5	6	0- 104	General Dynamics, at southeast corner of Hayden and McDowell	On the south side of General Dynamic's access road; north of Roosevelt and west of Granite Reef Road
2bcc	805179	E-11UA	1929	151	20	0- 151	7602 East McKellips Road	In Tempe; northeast corner of McKellips and Miller Roads; in front of Circle K
(A-2-4) 26dda2	509770	M-12UA	04/ /85	150	4	0- 150	3110 North Hayden Road	On Church of the Holy Cross property; northwest corner of dirt parking lot
26dda1	509769	M-12MA	04/ /85	300	6	0- 250	---	W of Hayden, N of Thomas, behind and NW of the Church of The Holy Cross in a dirt parking area. (next to PA-8LA)
26dda3	526970	PA-8LA	07/ /90	752	6	0- 702	3110 North Hayden Road	W of Hayden, N of Thomas, behind and NW of the Church of The Holy Cross in a dirt parking area.
35bca	539543	PG-35UA	08/ /93	156	4	0- 752	692- 752	---
	535462	PG-14UA	08/ /92	148	4	0- 153	7501 East Virginia Avenue	In grassy areas west of Coronado High School parking lot
36bdc					6	0- 148	2332 North 82nd Street	In the street on east side of north 82nd Street, between Sheridan Street and Vermont Avenue

\* ft bis = feet below land surface

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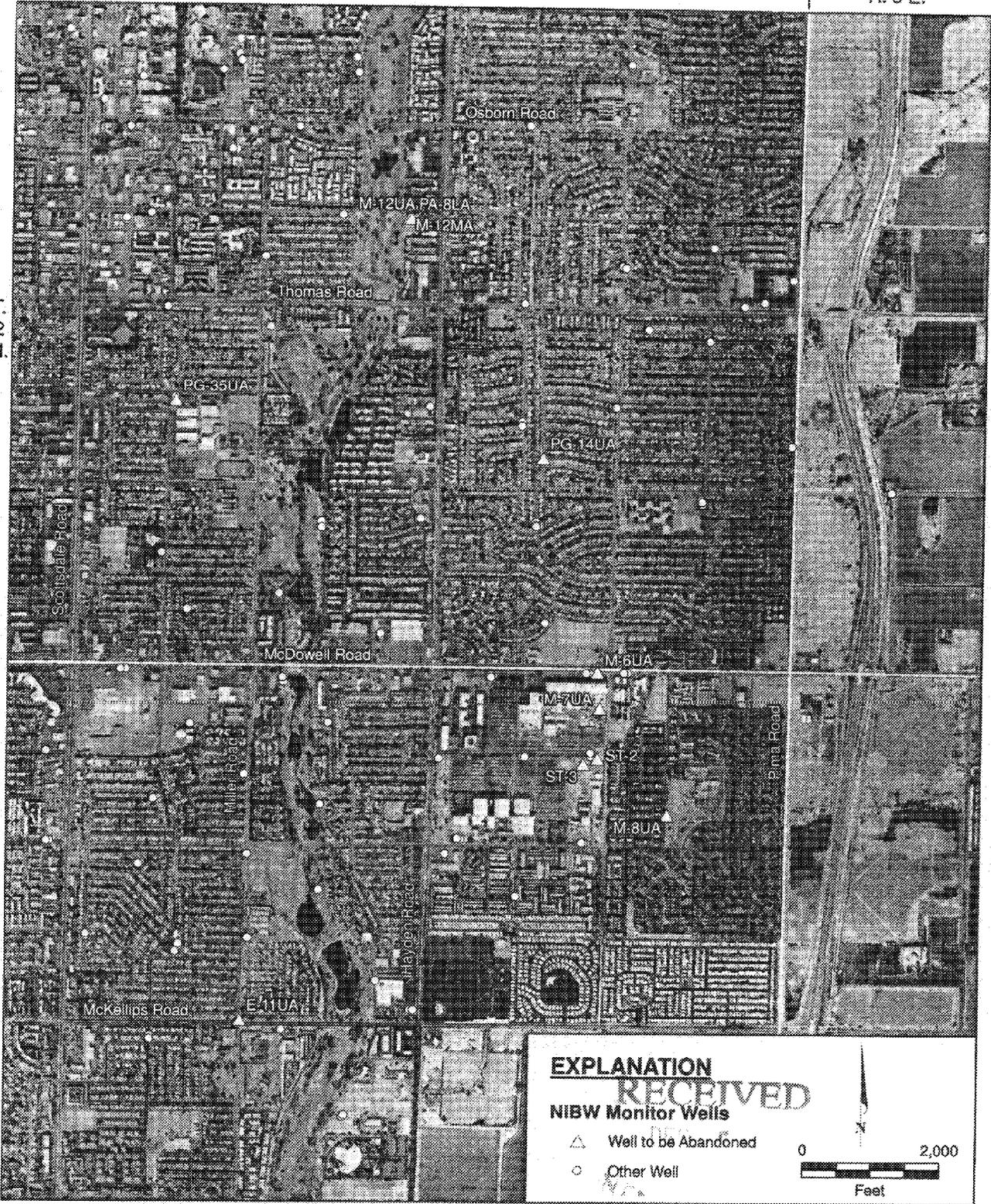
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R. 4 E.

R. 5 E.

T. 2 N.

T. 1 N.



**FIGURE 1. LOCATION MAP OF MONITOR WELLS,  
NORTH INDIAN BEND WASH SUPERFUND SITE,  
MARICOPA COUNTY, ARIZONA**



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**ATTACHMENT A**

DOCUMENTATION OF EPA ABANDONMENT APPROVALS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

August 23, 2006

Leslie Katz  
Errol L. Montgomery & Associates, Inc  
7949 East Acoma Drive, Suite 100  
Scottsdale, AZ 85260

**Subject: Abandonment of Upper Alluvium Unit Monitor Wells M-12UA and PG-35UA  
North Indian Bend Wash Superfund Site  
Phoenix, AZ**

Dear Ms. Katz:

EPA has received the NIBW PC's proposal for the abandonment of two upper aquifer unit monitoring wells (M-12UA and PG-35UA) associated with the North Indian Bend Wash Superfund Site. The abandonment request is dated 08/04/2006.

EPA and ADEQ have reviewed this document and do not have any major concerns with the abandonment of these two wells. At the request of ADEQ, and supported by EPA, we request that one final groundwater sample be collected and analyzed from PG-35UA prior to abandonment and that the decision regarding its replacement be made after analytical results are reviewed by the EPA and ADEQ.

Additionally, EPA and ADEQ want to make sure that there is the understanding that if in the future there are changes in the water quality trends of nearby UAU monitoring wells that warrant replacement of the wells, we will require their replacement.

Please keep EPA and ADEQ informed of the well abandonment schedule as it proceeds. If you have any questions, please feel free to contact me at 415-972-3175. Thank you for your hard work and cooperation.

Sincerely,

Jamey Watt  
Remedial Project Manager

cc: Bill DePaul, ADEQ  
Don Atkinson, ADEQ (via email)  
Michele Benson, EPA (via email)

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Phil Whitmore, CH2MHill (via email)  
Terry Lockwood, Motorola (via email)  
Dennis Shirley, Errol L. Montgomery (via email)  
site file

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WISCONSIN

506171

**Dennis Shirley**

---

**From:** Jefferson.Matthew@epamail.epa.gov  
**Sent:** Wednesday, October 29, 2003 4:20 PM  
**To:** Dennis Shirley  
**Cc:** cwhitmer@scottsdaleaz.gov; William Depaul; kowolf@srpnet.com; terry.lockwood@motorola.com; pwhitmor@ch2m.com  
**Subject:** RE: Well Abandonment

Good afternoon Dennis,

As mentioned in our phone conversation earlier today, please add the following to the list of wells that can be abandoned:

M-8 (transfer from the 'reduced monitoring frequency' list)  
PG-14

To clarify 'reduction in monitoring frequency' in your email below, the NIBW PCs can reduce water level monitoring schedule for those listed wells from semi-annual to annual monitoring. Also, the NIBW PCs may add the following wells to the 'reduced monitoring frequency' list:

PG-13  
PG-34  
PG-52

If you have any further comments or questions, please feel free to contact me.

Matthew Jefferson  
Remedial Project Manager  
US EPA Region 9  
(415) 972-3272  
(415) 947-3528 (fax)  
Jefferson.Matthew@epa.gov

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DEC - 7 2006  
WATER MGMT

Dennis Shirley  
<dshirley@elmontg  
omery.com>  
Jefferson/R9/USEPA/US@EPA,  
Pennington/R9/USEPA/US@EPA,  
10/14/03 12:12 PM  
pwhitmor@ch2m.com, William  
kowolf@srpnet.com

To: Matthew  
terry.lockwood@motorola.com  
cc: Melissa  
cwhitmer@scottsdaleaz.gov,  
Depaul <Depaul.William@ev.state.az.us>,  
Subject: RE: Well Abandonment

Thank you for the response. I have a question and a comment to your letter. Please clarify what you mean regarding the second set of 8 monitor wells where it says "EPA also approves a reduction of monitoring frequency at the following wells". These 8 wells are currently monitored for water levels on a semi-annual schedule. Do you mean that we may discontinue water level measurements altogether as the NIBW PCs proposed when we recommended the wells be abandoned or did you have some alternate frequency in mind?

506171

One of the wells, M-80A, that was included in your list for "a reduction in monitoring frequency" is not currently monitored (for water levels) because the well vault was removed by contractors (presumably working for the School District or Parks Department) during installation of a bike path. We think the well casing was buried by 2-3 feet of dirt. We brought this up to Melissa and City of Scottsdale in October 2001 and at the time it was agreed that the well should be physically abandoned. COS had referred us to work with the Scottsdale School District for access for well abandonment. We are hoping we can include this well in list of wells to be abandoned since there is no telling what condition it is in.

Please call if this is not clear.

Dennis

-----Original Message-----

From: Jefferson.Matthew@epamail.epa.gov  
[mailto:Jefferson.Matthew@epamail.epa.gov]  
Sent: Tuesday, October 14, 2003 8:35 AM  
To: Dennis Shirley; terry.lockwood@motorola.com  
Cc: Pennington.Melissa@epamail.epa.gov; cwhitmer@scottsdaleaz.gov; pwhitmor@ch2m.com;  
William Depaul; kowolf@srpnet.com  
Subject: Well Abandonment

Good morning Dennis & Terry,

Here's our response to the NIBW PC well abandonment memo. Letters will be sent out today and you should receive them sometime by the end of this week or the beginning of next week.

EPA well abandonment response:

(See attached file: Well Abandonment.wpd)

If you have any concerns or comments, please feel free to contact me.

Thanks,  
Matt

Matthew Jefferson  
Remedial Project Manager  
US EPA Region 9  
(415) 972-3272  
(415) 947-3528 (fax)  
Jefferson.Matthew@epa.gov

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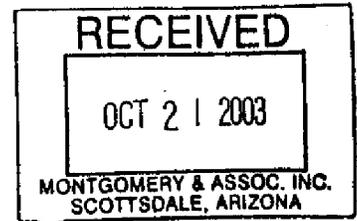
DEC - 7 2006

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION IX  
 75 Hawthorne Street  
 San Francisco, CA 94105



October 9, 2003

Mr. Dennis Shirley  
 NIBW PC Project Manager  
 Errol L. Montgomery & Associates, Inc.  
 7949 E. Acoma Dr., Suite 100  
 Scottsdale, AZ 85260

RE: Well Abandonment Recommendation Memorandum, Dated March 21, 2003  
 North Indian Bend Wash Superfund Site, Scottsdale, Arizona

Dear Mr. Shirley:

The Environmental Protection Agency (EPA) has reviewed the NIBW (North Indian Bend Wash) PC (Participating Companies) memorandum entitled "Recommended Abandonment of Selected Upper and Middle Alluvium Unit Monitor Wells, North Indian Bend Wash Site". This document was submitted for review on March 21, 2003 and received on May 27, 2003.

EPA has reviewed this document and received comments from Arizona Department of Environmental Quality, Salt River Project and the City of Scottsdale. EPA approves the abandonment of the following wells:

- |      |      |
|------|------|
| E-11 | ST-2 |
| M-6  | ST-3 |
| M-7  |      |

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However, NIBW PCs should understand that if a sample is required by EPA from location where a well that has been abandoned, then a well will be drilled by the NIBW PCs to replace the abandoned well.

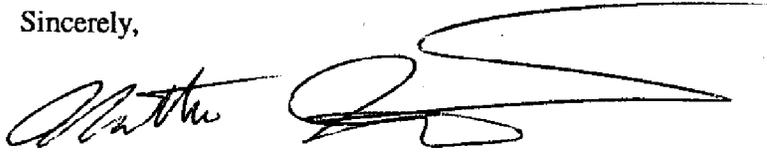
EPA also approves a reduction of monitoring frequency at the following wells:

- |       |       |
|-------|-------|
| B-1   | PG-27 |
| M-8   | PG-37 |
| PG-17 | PG-45 |
| PG-26 | PG-57 |

506171

If you have any comments or questions, please contact me at (415) 972-3272.

Sincerely,

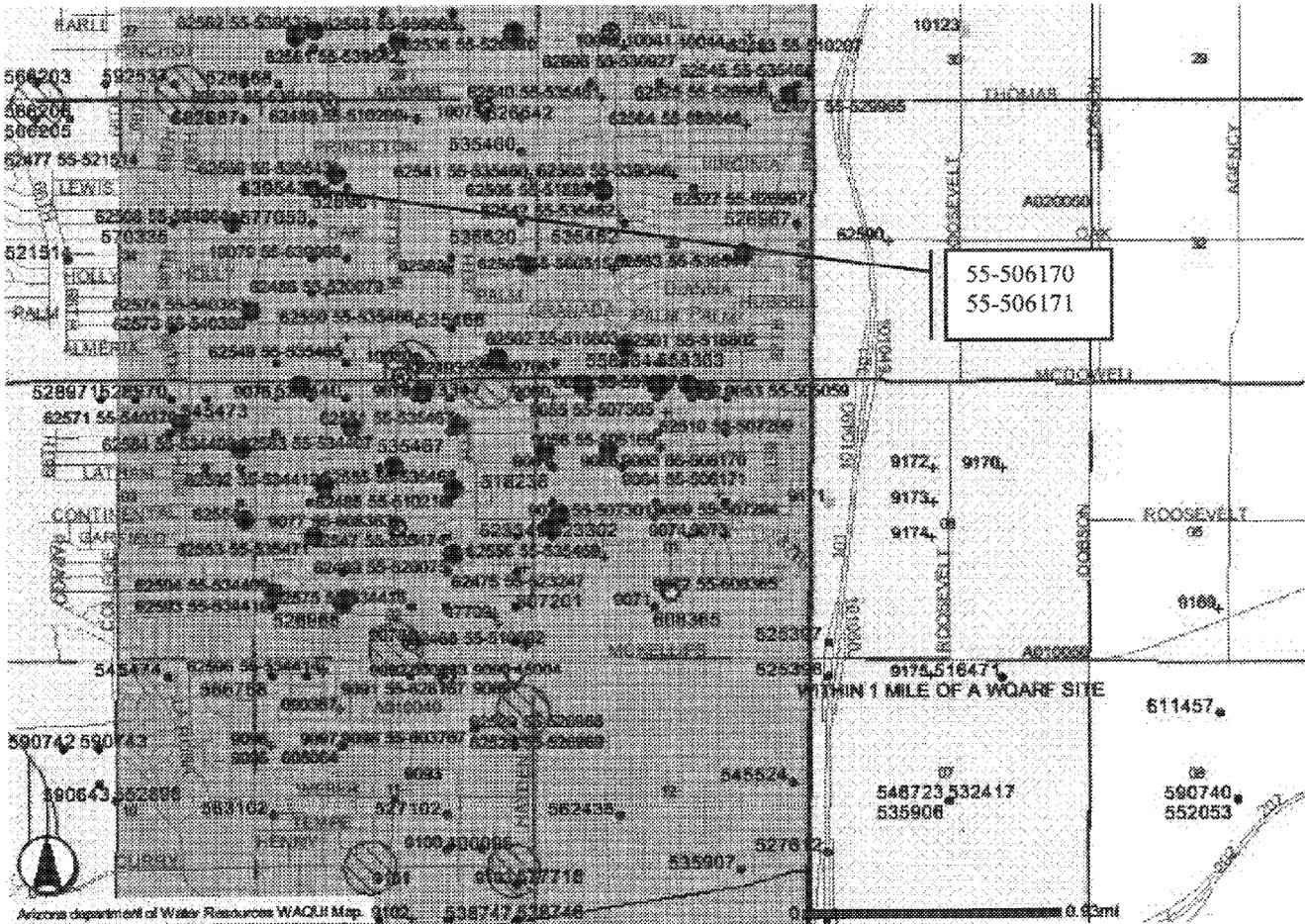
A handwritten signature in black ink, appearing to read "Matthew Jefferson". The signature is stylized with a large, sweeping flourish that extends to the right.

Matthew Jefferson  
Remedial Project Manger  
U.S. Environmental Protection Agency, Region IX

cc: Phillip Whitmore, CH2MHill  
Terry Lockwood, Motorola  
Chris Whitmer, City of Scottsdale  
Karol Wolf, SRP  
William DePaul, ADEQ

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# 55-506170, 55-506171/ MOTOROLA INC NOI TO ABANDON, A(1-4) 01BDC



Arizona Department of Water Resources WQRII Map. 0102, 550742, 550740

Working Together



**Arizona  
Department  
of Environmental  
Quality**



**Arizona  
Department  
of Water  
Resources**

Map generated on 1/4/2007  
Water Quality Sample Test Results for ADEQ Wells  
Information provided is preliminary and subject to revision.  
It may not represent the full extent of known water quality concerns.

- Legend**
- Highlighted Feature
  - theBufferPolygons
  - theBufferTarget
  - ADEQ Wells
  - Wells > HGL
  - Wells > Secondary MCL
  - Wells > MCL
  - No Exceedence
  - REGISTERED WELLS
  - Streets
  - Sections
  - Townships
  - GWR LUST Buffer
  - RCRA Site Buffer
  - VRP Site Buffer
  - Registry
  - 1 Mi. WQRF Buffer
  - WQRF Sites

**ARIZONA DEPARTMENT OF WATER RESOURCES**

3550 N. Central Avenue, Phoenix, Arizona 85012  
Telephone (602) 771-8500  
Fax (602) 771-8691

January 04, 2007



**Janet Napolitano**  
Governor

**Herbert R. Guenther**  
Director

MOTOROLA INC  
3102 N 56TH ST MD56-128  
PHOENIX, AZ 85018

Registration No. 55-506171  
File No. A(1-4) 1 BDA

Dear Applicant:

Enclosed is a copy of the Notice of Intent (NOI) to Abandon a Well. This NOI, which was recently filed with this Department is being returned to you as evidence of your compliance with ARS § 45-594; R12-15-816. The enclosed Well Owners Notification of Abandonment is to be submitted when the well has been properly abandoned. The well abandonment card and Abandonment Completion Report forms have been sent to your driller. He may not begin abandonment until he has received the well abandonment card. If you change drillers, you must supply this Department with the new driller's identity. Well abandonments shall be performed only by a licensed well drilling contractor or single well licensee.

ARS §45-594; R12-15-816(K) requires the registered well owner to submit a Well Owners Notification of Abandonment form within thirty (30) days after the abandonment of the well. It also requires the driller to furnish this Department a complete and accurate Well Abandonment Report within thirty (30) days after completion of abandonment. You should insist, and ensure, that both of these are done.

Sincerely,

A handwritten signature in black ink, appearing to read "John Mawarura".

John Mawarura

NOI Unit  
Water Management Support Section

Enclosures

**ARIZONA DEPARTMENT OF WATER RESOURCES  
WATER MANAGEMENT SUPPORT SECTION**

3550 N. Central Avenue  
Phoenix, Arizona 85012

**VARIANCE GRANTED-ABANDON**

Notice! This well is located in or near an area of groundwater contamination (WQARF/CERCLA/DOD or Other). Be advised that special requirements may apply. Please refer to the attached letter(s) to the well owner for details.

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

WELL REGISTRATION NO: 55-506171

AUTHORIZED DRILLER: LAYNE CHRISTENSEN COMPANY

LICENSE NO: 7

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

WELL OWNER: MOTOROLA INC 3102 N 56TH ST MD56-128 PHOENIX, AZ 85018

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

NE ¼ OF THE SE ¼ OF THE NW ¼ SECTION 1 TOWNSHIP 1 NORTH RANGE 4 EAST

NO. OF WELLS IN THIS PROJECT: 1 ASSESSOR PARCEL NO: 131-9-002C

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF

*Prva*

WATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A WELL ABANDONMENT  
COMPLETION REPORT WITHIN 30 DAYS OF ABANDONMENT



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. Owner MOTOROLA INC., GOVERNMENT ELECTRONICS GROUP  
 Name 8201 East McDowell Road Scottsdale, Arizona 85257  
 Address
- 2. Lessee or Operator Motorola Inc., Government Electronics Group  
 Name 8201 East McDowell Road Scottsdale, Arizona 85257 Attention of Mr. Robert Kline  
 Address
- 3. Driller Weber Pump, Inc.  
 Name P. O. Box 26729 Tempe, Arizona 85282  
 Address

4. Location of well: (A-1-4)lda<sub>2</sub> - Motorola Soil Test Borehole ST-3

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5. Permit No. \_\_\_\_\_  
(if issued)

SEP 29 1983

DESCRIPTION OF WELL

WATER RESOURCES

- 6. Total depth of hole 105.5 ft.
- 7. Type of Casing Schedule 80 PVC
- 8. Diameter and length of casing 6 in. from 1 ft to 104 ft in from \_\_\_\_\_ to \_\_\_\_\_.
- 9. Method of sealing at reduction points NA
- 10. Perforated from 64 to 104, from \_\_\_\_\_ to \_\_\_\_\_, from \_\_\_\_\_ to \_\_\_\_\_
- 11. Size of cuts 1/8-inch by 3 inches Number of cuts per foot 4
- 12. If screen was installed: Length \_\_\_\_\_ ft. Diam \_\_\_\_\_ in. Type \_\_\_\_\_
- 13. Method of construction Bucket auger  
drilled, dug, driven, bored, jetted, etc.
- 14. Date started July 29 1983  
Month \_\_\_\_\_ day \_\_\_\_\_ year \_\_\_\_\_
- 15. Date completed August 11 1983  
Month \_\_\_\_\_ day \_\_\_\_\_ year \_\_\_\_\_
- 16. Depth to water 89.14 ft. (If flowing well, so state.)
- 17. Describe point from which depth measurements were made, and give sea-level elevation if available. Top of 3/4-inch access tube approximately 1,211 feet msl

18. If flowing well, state method of flow regulation \_\_\_\_\_

- 19. REMARKS: Attachments:  
(1) Lithologic log prepared by Hargis & Montgomery, Inc.  
(2) Letter from the Arizona Department of Water Resources with variance to substitute cement mix for cement grout.  
(3) Schematic diagram of well construction.

DO NOT WRITE IN THIS SPACE	
OFFICE RECORD	
Registration No. <u>55-506171M</u>	
Received _____	By _____
Entered <u>9-30-83</u>	By <u>gfc</u>
File No. <u>ACI-421 lda<sub>2</sub></u>	

(Well log to appear on Reverse side)

MICROFILMED



LITHOLOGIC DESCRIPTION  
SOIL TEST BOREHOLE ST-3

(A-1-4)1bda<sub>2</sub>

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SEP 29 1983  
WATER RESOURCES

<u>DEPTH (feet)</u>	<u>DESCRIPTION</u>
0 - 5	Light-brown; slightly moist, sandy silt with caliche; silt 70%, caliche 20%, sand 10%.
5 - 10	Light-brown; slightly moist, gravelly, sandy silt with caliche; silt 60%, caliche 30%, gravel 5%, sand 5%.
10 - 15	Brown; moist, sandy, gravelly silt and clay with caliche; silt and clay 75%, sand 10%, gravel 10%, caliche 5%.
15 - 21	Brown; silty, sandy gravel; gravel 40%, cobbles 10%, sand 30%, silt 20%. No caliche observed below 15 feet. Started adding water at 17 feet to stabilize borehole wall.
21 - 25	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 10%, sand 35%, silt and clay 20%.
25 - 30	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%. Boulders at 27 and 28 feet.
30 - 35	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 10%, sand 40%, silt and clay 15%.
35 - 40	Brown; silty, clayey, gravelly sand; sand 40%, gravel 30%, cobbles 10%, silt and clay 20%.
40 - 45	Brown; silty, clayey, gravelly sand; sand 40%, gravel 30%, cobbles 10%, silt and clay 20%.
45 - 50	Brown; silty, clayey, gravelly sand; sand 40%, gravel 30%, cobbles 10%, silt and clay 20%.
50 - 55	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%. Boulders at 55 feet.
55 - 60	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%.
60 - 65	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 20%, sand 30%, silt and clay 10%.
65 - 70	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 35%, silt and clay 15%. Boulders at 70 feet.

UNPROCESSED



HARGIS & MONTGOMERY, INC.  
TUCSON, ARIZONA

LITHOLOGIC DESCRIPTION  
SOIL TEST BOREHOLE ST-3  
(A-1-4)1bda<sub>2</sub>

2.

RECEIVED  
SEP 29 1983  
WATER RESOURCES

<u>DEPTH</u> <u>(feet)</u>	<u>DESCRIPTION</u>
70 - 75	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 5%, sand 30%, silt and clay 25%.
75 - 80	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%.
80 - 85	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 35%, silt and clay 15%.
85 - 90	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 5%, sand 40%, silt and clay 15%.
90 - 96	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%. Perched water table encountered at 91.5 feet.
96 - 100	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 10%, sand 35%, silt and clay 20%.
100 - 105.5	Brown; silty, gravelly sand; sand 50%, gravel 40%, cobbles 5%, silt 5%.
105.5 - TOTAL DEPTH	

MICROFILMED



HARGIS & MONTGOMERY, INC.  
TUCSON, ARIZONA



MOTOROLA INC.

August 11, 1983

Department of Water Resources  
State of Arizona  
99 East Virginia  
Phoenix, AZ 85004

Re: Wells - Motorola Inc.  
GEG Property  
8201 East McDowell Road  
Scottsdale, AZ 85257

Gentlemen:

In accordance with Section 45-596, Motorola hereby files this Notice of Intention in respect to three (3) exploration/monitoring wells.

The information required pursuant to applicable statutes and rules for issuance of the necessary permits is as follows:

1. Hole and Land Location:  
 Hole #1: SE 1/4, NE 1/4, NW 1/4, Section 1, Township 1N, Range 4E, (A-1-4) BAD  
 Hole #2: NE 1/4, SE 1/4, NW 1/4, Section 1, Township 1N, Range 4E (A-1-4) 1 BDA1  
 Hole #3: NE 1/4, SE 1/4, NW 1/4, Section 1, Township 1N, Range 4E (A-1-4) 1 BDA2
2. Activity Filing Notice:  
 Motorola Inc., Government Electronics Group  
 8201 East McDowell Road  
 Scottsdale, AZ 85257
3. Name of Contact Person:  
 Robert Kline  
 (602) 949-3222
4. Applicant Is:  
 Motorola Inc., Owner
5. Purpose of Wells Drilled Pursuant to This Notice:  
 Monitoring Wells
6. Number of Wells in Project:  
 Three (3)

RECORDED

07 "M"

DO NOT WRITE IN THIS SPACE  
OFFICE RECORD

FILE NO. A(1-4)1 bda

FILED 8.11.83 BY mm

INPUT 8.25.83 BY \_\_\_\_\_

DUPLICATE MAILED 8.25.83 BY \_\_\_\_\_

REGISTRATION NO 55-506171

AMA NON EXPANSION AREA Phoenix



7. Owner of the Land:  
Motorola Inc.  
1303 Algonquin Road  
Schaumburg, IL 60196
8. Description of the Wells:  
Diameter: 48"  
Depth: Greater than 100'  
Type of Casing: 6" dia., schedule  
80 PVC
9. Construction Will Start About:  
See attached letter.
10. Is Pump Equipment to be Installed?  
Yes
  - a) If so, what will be the design pump capacity?  
3 to 5 gallons per minute for each well.
  - b) What use will be made of the water?  
Chemical analysis sampling.
11. Driller's Name:  
Name: Weber Pump, Inc.  
Address: P.O. Box 26729, Tempe, AZ 85282  
Dept. License #: 215
12. Proposed Method of Abandonment of Wells:  
Abandonment of wells will be in accordance with applicable Arizona statutes and regulations issued by the Department of Water Resources.

This letter is submitted in order to comply with Rule 12-15-809 and the information contained herein is complete and correct to the best of my knowledge and belief.

Very truly yours,

Robert F. Kline  
Director  
Support Operations Staff

ac

Encl.

7/11/83



MOTOROLA INC.

August 11, 1983

Department of Water Resources  
State of Arizona  
99 East Virginia  
Phoenix, AZ 85004

Re: Wells - Motorola Inc.  
GEG Property  
8201 East McDowell Road  
Scottsdale, AZ 85257

Gentlemen:

This letter is submitted in accordance with our conversation of August 4, 1983, regarding the above captioned. The referenced wells will be modified by a licensed driller to conform to applicable statutes and regulations including conformity to the requirement of a 20 foot surface seal.

By submission of another letter, I have made application for the permits for the three (3) wells. Your attention and assistance in this matter is greatly appreciated.

Very truly yours,

Robert F. Kline  
Director  
Support Operations Staff

ac

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State of Arizona  
DEPARTMENT OF WATER RESOURCES

99 E. Virginia Avenue, Phoenix, Arizona 85004



August 25, 1983

BRUCE BABBITT, Governor  
WESLEY E. STEINER, Director

R. F. Kline, Director  
Motorola, Inc.  
P. O. Box 1417  
Scottsdale, Arizona 85252

Re: Notice of Intention to Drill Registration Nos. 55-506169,  
55-506170, 55-506171

Dear Mr. Kline:

By this special letter we are transmitting documents relating to the drilling of the referenced three wells.

These wells are being approved for drilling as exploration wells for monitoring purposes under the provisions of the Department's Draft Rule R12-15-802. Authority is granted under the conditions which you stated in your letter of August 11, 1983, namely:

1. The wells will be limited to a pump design capacity of 5 gpm on each well.
2. The wells will be properly abandoned in accordance with applicable statutes and Department regulations upon completion of the monitoring project.
3. The referenced wells will be modified by a licensed driller to conform with applicable rules including conformity to the requirement of a 20 foot surface seal.

Our normal procedures would have required that you furnish a Report of Well Driller and a Completion Report simultaneously with the submission of the filing of the Notice of Intention to Drill these exploration wells. In this case, we are processing the notices without that requirement being met. We will expect, however, that you will file the appropriate Logs and Completion Report in the near time frame and the appropriate forms to do this are enclosed as part of the total package.

Sincerely,

Richard A. Gessner  
Chief, Operations Division

RAG:et  
Enclosures

MICROFILMED

Think Conservation!

Office of Director 255-1554

Administration 255-1550, Water Resources and Flood Control Planning 255-1566, Dam Safety 255-1541,  
Flood Warning Office 255-1548, Water Rights Administration 255-1581, Hydrology 255-1586.

State of Arizona

DEPARTMENT OF WATER RESOURCES

99 E Virginia Avenue, Phoenix, Arizona 85004



BRUCE BABBITT, Governor  
WESLEY E STEINER, Director

August 18, 1983

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SEP 29 1983

WATER RESOURCES

Mr. Errol L. Montgomery  
Hargis and Montgomery, Inc.  
Suite 5  
1735 East Fort Lowell Road  
Tucson, Arizona 85719

Re: Request for Well Construction Variance  
for Motorola Indian Bend Project

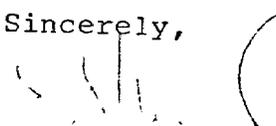
Dear Mr. Montgomery:

We are in receipt of your letter dated August 10, 1983 requesting a construction variance for three monitor wells to be drilled near the Indian Bend Motorola plant. This letter constitutes our approval of your proposed construction plan as described below.

The requirement to incorporate 20 feet of cement grout, with aggregate size in the grout mixture not to exceed one-quarter inch diameter is waived. Instead, a common concrete mix with aggregate size no larger than three-quarter inch diameter will be acceptable.

If you have any questions, please feel free to call.

Sincerely,

  
Edward A. Nemecek  
Chief Hydrologist

nh

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Think Conservation!

Office of Director 255 1554

Administration 255 1550, Water Resources and Flood Control Planning 255 1566, Dam Safety 255 1541,  
Flood Warning Office 255 1548, Water Rights Administration 255 1581, Hydrology 255 1586

RECEIVED  
 SEP 29 1983  
 WATER RESOURCES

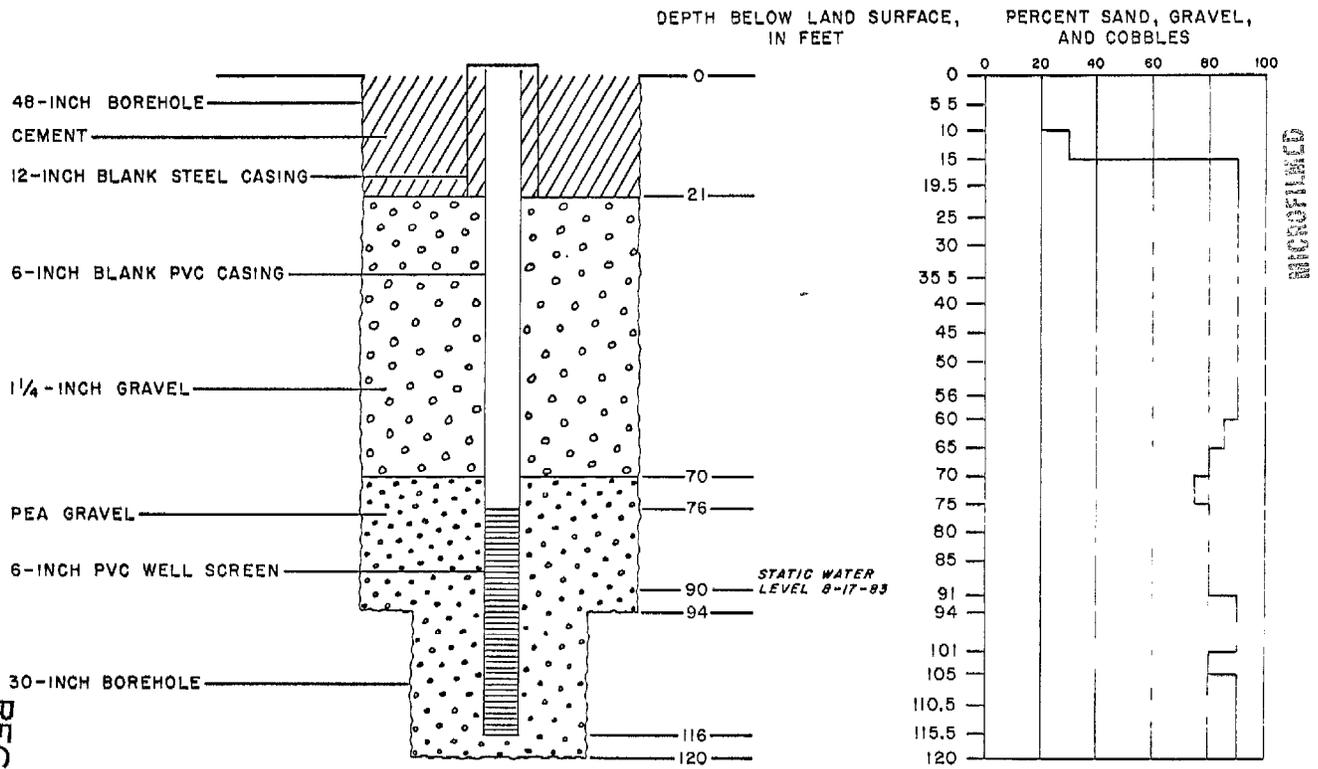


FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND, GRAVEL, AND COBBLES IN SOIL SAMPLES FOR WELL ST-1 (A-1-4)1bad

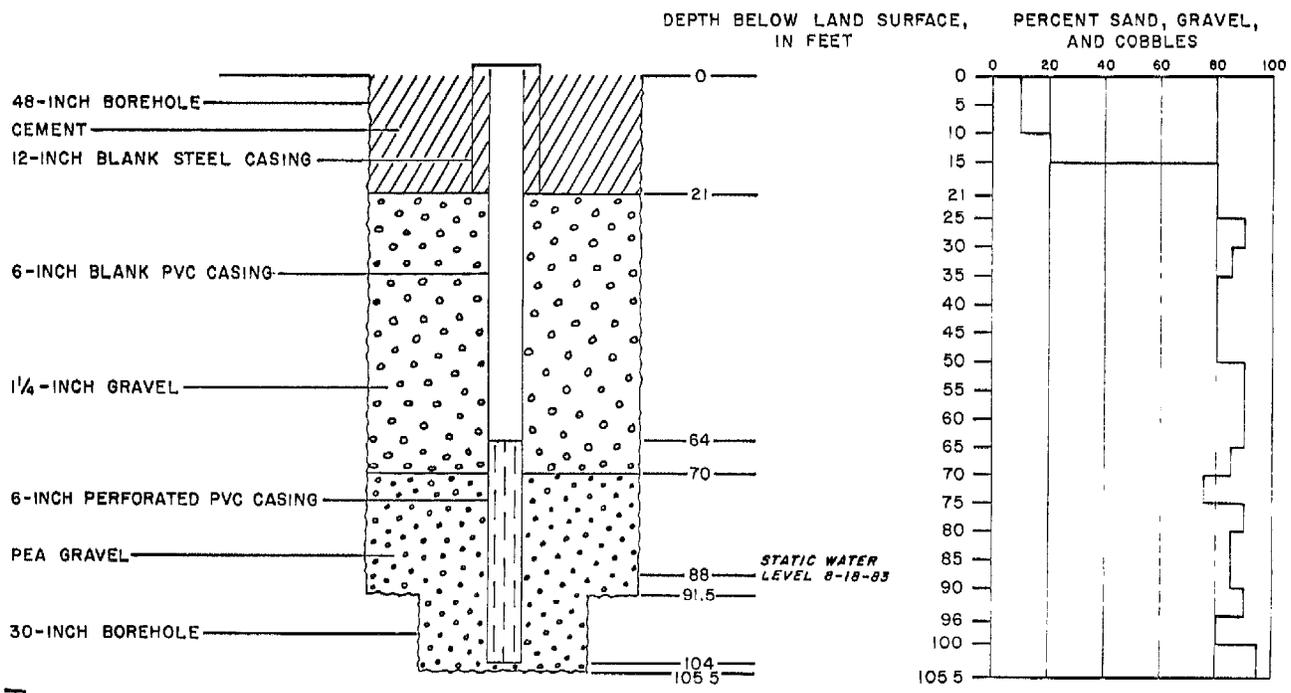


FIGURE 1. SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND, GRAVEL, AND COBBLES IN SOIL SAMPLES FOR WELL ST-3 (A-1-4)1bda<sub>2</sub>

RECEIVED  
 SEP 29 1983  
 WATER RESOURCES

DEPARTMENT OF WATER RESOURCES  
99 East Virginia  
Phoenix, Arizona 85004

Registration No. SS-506171M

Owner of Well Site MOTOROLA

File No. A(1-4)1bda<sub>2</sub> INPUT

COMPLETION REPORT

9-30-83

1. Completion Report to be filed with the Department within 30 days after installation of pump equipment. *jc*
2. The tested pumping capacity of the well in gallons per minute for a non-flowing well should be determined by measuring the discharge of the pump after continuous operation for at least 4 hours and for a flowing well by measuring the natural flow at the land surface.
3. Drawdown of the water level for a non flowing well should be measured in feet after not less than 4 hours of continuous operation and while still in operation and for a flowing well the shut-in pressure should be measured in feet above the land or in pounds per square inch at the land surface.
4. The static groundwater level should be measured in feet from the land surface immediately prior to the well capacity test.

LOCATION OF THE WELL

(A-1-4)1bda<sub>2</sub>

Date Well Completed 08-11-83 Depth of Well 104 feet

\*1. Well Test:

Test Pumping Capacity 6.4 Date Well Tested 08.18.83  
(Gal. per min.)

Method of Discharge Measurement 55-gallon barrel and stop watch  
(weir, orifice, current meter, etc.)

Static Groundwater Level 89.14 ft. Drawdown 0.12 ft.

Total Pumping Lift 89.26 ft. Drawdown \_\_\_\_\_ lbs.  
(Flowing Well)

2. Equipment Installed:

Kind of Pump Submersible  
(turbine, centrifugal, etc.)

Kind of Power Electric H.P. Rating of Motor 1/3  
(Elec., Nat. Gas, Etc.)

I HEREBY CERTIFY that the above statements are true to the best of my knowledge and belief.

\*Pump designed for 5 gpm.

Actual discharge 6.4 gpm.

*James D. Glee*  
Signature

MOTOROLA, INC.

Address

4350 E. Camelback Road - 250G

Phoenix Arizona 85018  
City State Zip

9-27, 19 83  
Date

Motorola Inc  
 8201 East McDowell Road  
 P.O. Box 1417  
 Scottsdale, Arizona 85252

STATE OF ARIZONA  
 DEPARTMENT OF WATER RESOURCES  
 WATER RIGHTS ADMINISTRATION  
 99 EAST VIRGINIA  
 PHOENIX, ARIZONA 85004

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
55	506169
	THRU
55	506171

FUND SOURCE	ACCOUNT NO.			INT. ACCT.	ITEM DESCRIPTION	RATE	\$ AMOUNT
	AGENCY	CHAPTER	DIV.				
					Filing Fee for Notice of Intent to	10.00	30.00
					Drill an Exempt Well		
					File No:                      Registration NO;		
					A(1-4)1 bad                      55-506169		
					A(1-4)1 bda                      55-506170		
					A(1-4)1 bda                      55-506171		
					Check # 61508	# 9137 A	11:59

WRITER PAYMENT  
 GUESTS 3  
 CHK NO 61508  
 55-1 30.00  
 TAX 0.00  
**TOTL 30.00**  
 GEN.CHEK 30.00

8/24/83

TOTAL

\$ 30.00

mw