BEFORE THE DEPARTMENT OF WATER RESOURCES

IN AND FOR THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR TRANSFER 70604 AND APPLICATION FOR PERMIT NO. 63-31689 IN THE NAME OF ARIES DEVELOPMENT, L.L.C.	)	**FINAL ORDER DISMISSING CONTESTED CASE**

On December 10, 2004, a hearing officer for the Idaho Department of Water Resources ("Department") issued a Recommended Order Dismissing Contested Case for the above captioned matter. Petitions for Reconsideration were due on or before December 26, 2004. No Petitions for Reconsideration were filed with the Department.

The Director, having reviewed the *Settlement Agreement* signed by all current parties to this contested case and dated October 31, 2004, and the *IDWR Staff Memorandum* dated December 3, 2004; and all other parties having been previously dismissed from this contested case, and good cause appearing therefore:

IT IS HEREBY ORDERED that the above-entitled contested case is DISMISSED and shall be processed by the Idaho Department of Water Resources in accordance with the *Settlement Agreement,* a copy of which is attached as exhibit A.

Dated this 17th day of February, 2005.

Karl J. Dreher
Director

CERTIFICATE OF MAILING

I HEREBY CERTIFY that on this 18th day of February, 2005, the foregoing document was served on the following by placing a copy of the same in the United States mail, postage prepaid and properly addressed to the following:

J EVAN ROBERTSON
ROBERTSON HEPWORTH SLETTE WORST & STOVER PLLC
PO BOX 1906
TWIN FALLS ID 83303-1906

MOLLY O LEARY
RICHARDSON & O LEARY
PO BOX 1849
EAGLE ID 83616-1849

TAMMY ZOKAN
MOORE SMITH BUXTON & TURCKE CHARTERED
225 N 9TH ST STE 420
BOISE ID 83702

CHARLES HONSINGER
RINGERT CLARK
PO BOX 2773
BOISE ID 83701

MICHAEL J SIELER
EAGLE NEIGHBORS, INC.
1125 STEEPLE VIEW DR
EAGLE ID 83616

Victoria Wigle

Victoria Wigle
Administrative Assistant to the Director
Idaho Department of Water Resources

SETTLEMENT AGREEMENT

THIS AGREEMENT is made this 31st day of October, 2004, between and among **ARIES DEVELOPMENT, L.L.C.**, an Idaho limited liability company ("Applicant"), by and through its attorney of record, J. EVAN ROBERTSON; and the following entities (hereinafter referred to collectively as "Protestants"): **EAGLE WATER COMPANY, INC.**, by and through its attorney of record, MOLLY O'LEARY; **CITY OF EAGLE, IDAHO**, by and through its attorney of record, TAMMY ZOKAN; **EAGLE NEIGHBORS, INC.** (formerly Homeowners of Downing Downs Subdivision), by and through its appointed agent, MICHAEL J. SEILER; and **THE CHASE FAMILY**, by and through their attorney of record, CHARLES L. HONSINGER.

RECITALS:

A. Applicant is the owner and developer of the Brookwood Subdivision ("Brookwood").

B. Brookwood contains certain aesthetic water features including a series of small streams and ponds, as shown generally on Figure 1 prepared by Brockway Engineering, PLLC, dated February 14, 2002, a copy of which is attached hereto as **Exhibit "A"** ("Water Features").

C. In connection with the Water Features, the Applicant has heretofore filed and has pending before the Idaho Department of Water Resources an application for a permit to appropriate ground water (Permit Application No. 63-31689) and an application for transfer of a portion of an existing water right (Transfer No. 70604/Claim No. 63-5087), which are collectively hereinafter referred to as "Applications".

D. The Protestants have duly filed protests of the Applications with the Idaho Department of Water Resources, and a hearing on the Applications and protests is pending.

E. In an effort to resolve the above-referenced protests, the parties hereto have negotiated the terms and conditions of this Settlement Agreement.

NOW, THEREFORE, the parties hereto, agree as follows:

1. This Agreement, and all the terms and conditions hereinafter set forth, shall become effective only upon the full execution of this Agreement by all of the parties named herein, and its approval by the Idaho Department of Water Resources.

2. The Applicant agrees to line Pond No. 5 of the Water Features with betonite and compacted earth to specifications approved by Brockway Engineering, PLLC. The location of Pond No. 5 is identified on Exhibit "A" hereto.

3. The above-referenced Application for Permit No. 63-31689 shall be amended by the submittal of a new Application for Permit in its stead, a copy of which is attached hereto as **Exhibit "B"**. Applicant agrees that said new Application for Permit, and the above-referenced Application for Transfer of Water Right No. 70604, if approved by the Idaho Department of Water Resources, shall limit the total ground water diversion rate and annual volume of water for the Water Features

EXHIBIT A

from both Applications, and he proposed well to be drilled in Brookwood in connection therewith, as follows:

(a) Maximum total diversion rate - 80 gpm. (.18 cfs)
(b) The maximum annual volume of water diverted - 40 acre feet
(c) Maximum well depth - 100 feet
(d) Maximum well size - 6 inch diameter

4. Immediately upon full execution of this Agreement, the Applicant shall submit a copy of it, including attachments, to the Idaho Department of Water Resources for its review and approval. Should the Department approve, the Applicant shall formally submit, in lieu of Application for Permit No. 63-31689, the new Application for Permit in the form attached hereto as Exhibit "B".

5. Upon the formal submittal of said new Application for Permit, and its assignment of an identification number by the Idaho Department of Water Resources, Applicant shall provide Protestants with evidence thereof, upon the receipt of which the Protestants shall formally withdraw their existing protests, and agree not to thereafter file, support or participate in any further protests of Applicant's applications to divert ground water for the Brookwood Water Features consistent with the limitations set forth in paragraph 3 hereinabove.

6. This Agreement shall be construed under the laws of the State of Idaho. Should any action be brought to interpret or enforce any provision hereof, or for damages for breach hereof, the prevailing party shall be entitled to recover all attorney's fees and costs wherein such action is brought, including all attorney's fees and costs on appeal.

7. The parties hereby declare that the terms of this Agreement have been completely read and are fully understood and voluntarily accepted. The parties acknowledge that they enter into this Agreement without any coercion, threats or duress. All of the parties fully understand all of the provisions of this Agreement, and believe them to be fair, just, adequate and reasonable, and accordingly accept the provisions of this Agreement freely and voluntarily.

8. This Settlement Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which together will constitute one and the same instrument. Facsimile signatures shall be deemed as originals thereof.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first written above.

"APPLICANT"

ARIES , L.L.C.

By: _____
J. Evan Robertson
Attorney of Record

"PROTESTANTS"

EAGLE WATER COMPANY, INC.

By:_____
Molly O'Leary
Attorney of Record

CITY OF EAGLE, IDAHO

By:_____
_____, Mayor

ATTEST:

_____
_____, City Clerk

EAGLE NEIGHBORS, INC.
f/k/a Homeowners of Downing Downs Subd.

By:_____
Michael J. Sieler
Its: _____

THE CHASE FAMILY

By:_____
Charles L. Honsinger
Attorney of Record

lrlm\settlement agree Aries_water

"PROTESTANTS"

EAGLE WATER COMPANY, INC.

By:_____
Molly O'Leary
Attorney of Record

CITY OF EAGLE, IDAHO

By: Nancy G. Merrill
Nancy G. Merrill, Mayor

ATTEST:

Sharon K Bergmann
Sharon Bergmann, City Clerk

CITY OF EAGLE CORPORATE SEAL INCORPORATED 1971 STATE OF IDAHO

EAGLE NEIGHBORS, INC.
f/k/a Homeowners of Downing Downs Subd.

By:_____
Michael J. Sieler
Its: _____

THE CHASE FAMILY

By:_____
Charles L. Honsinger
Attorney of Record

lrlm\settlement agree Aries_water

"PROTESTANTS"

EAGLE WATER COMPANY, INC.

By:_____
Molly O'Leary
Attorney of Record

CITY OF EAGLE, IDAHO

By:_____
Tammy Zokan
Attorney of Record

EAGLE NEIGHBORS, INC.
f/k/a Homeowners of Downing Downs Subd.

By:_____
Michael J. Sieler
Its: _____

THE CHASE FAMILY

By:_____
Charles L. Honsinger
Attorney of Record

!rlm\settlement agree Aries_water

"PROTESTANTS"

EAGLE WATER COMPANY, INC.

By:_____
Molly O'Leary
Attorney of Record

CITY OF EAGLE, IDAHO

By:_____
Tammy Zokan
Attorney of Record

EAGLE NEIGHBORS, INC.
f/k/a Homeowners of Downing Downs Subd.

By:_____
Michael J. Sieler
Its: _____

THE CHASE FAMILY

By:_____
Charles L. Honsinger
Attorney of Record

!rlm\settlement agree Aries_water

FIGURE 1.
BROOKWOOD SUBDIVISION, EAGLE ID
T04N, R01E

BROCKWAY ENGINEERING, PLLC
MLA 2/14/2002

338.6 0 338.6 677.2 Feet

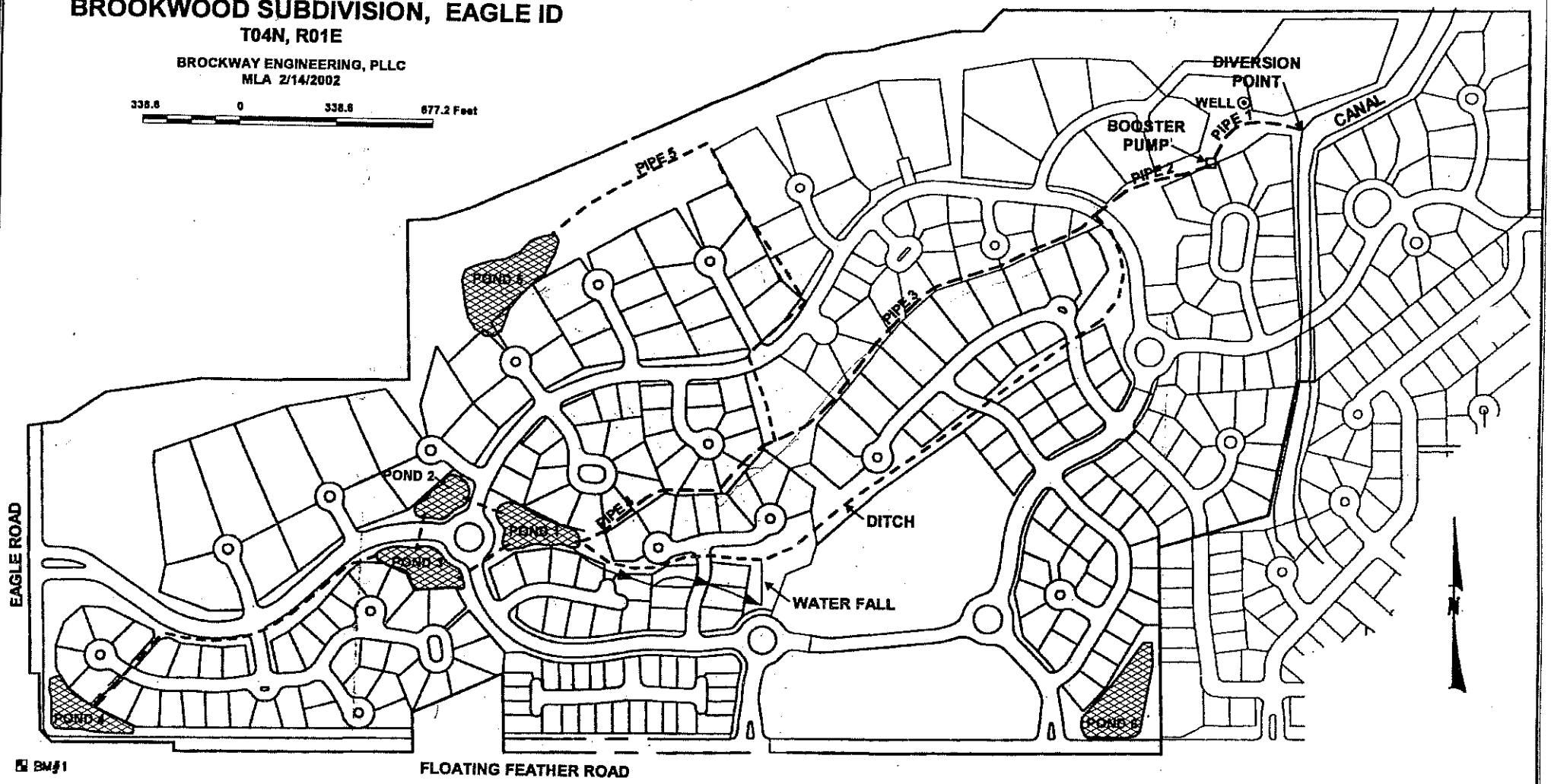


EXHIBIT A

Form 202
1/96

Ident. No. _____

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

1. Name of applicant Aries Development L.L.C Phone 208-336-2200
   Post Office address P.O. Box 6887 Boise, ID 83707
2. Source of water supply Ground water which is a tributary of _____
3. Location of point of diversion is _____ 1/4 of NE 1/4 of SE 1/4, Govt. Lot _____
   Sec. 4 Township 4N Range 1E B.M. Ada County; additional points of diversion, if any: _____
4. Water will be used for the following purposes:
   Amount 0.18 cfs (cfs or acre-feet per annum) for Aesthetics purposes from 1-1 to 12-31 (both dates inclusive)
   Amount 40 af* (cfs or acre-feet per annum) for Storage purposes from 1-1 to 12-31 (both dates inclusive)
   Amount _____ (cfs or acre-feet per annum) for _____ purposes from _____ to _____ (both dates inclusive)
   Amount _____ (cfs or acre-feet per annum) for _____ purposes from _____ to _____ (both dates inclusive)
5. Total quantity being appropriated is (a) 0.18 (cubic feet per second) and/or (b) 40* (acre-feet per annum)
6. Proposed diverting works:
   a. Description of ditches, flumes, pumps, headgates, etc. *Limit of annual pumped volume. Pond system volume is 60.7 acre feet. Well and pipe/ditch distribution to ponds within Brookwood Subdivision. See attached narrative
   b. Height of storage dam 0 feet; active reservoir capacity _____ acre-feet; total reservoir capacity 60.7 acre-feet; period of year when water will be diverted to storage: 1/1 to 12/31 inclusive.
   c. Proposed well diameter is 6 inches; proposed depth of well is 100 feet
   d. Is groundwater with a temperature of greater than 85 degrees being sought? No
   e. If well is already drilled, when? _____; Drilling firm _____;
      Well was drilled for *(well owner)* _____
7. Time required for completion of works and application of water to proposed beneficial use is 5 years *(minimum 1 year)*
8. Description of proposed uses (if irrigation only, go to item 9):
   a. Hydropower; show total feet of head and proposed capacity in KW. _____
   b. Stockwatering; list number and kind of livestock. _____
   c. Municipal; show name of municipality. _____
   d. Domestic; show number of households _____;
   e. Other; describe fully. Ground water for wintertime maintenance of aesthetic ponds and mitigation for evaporation See attached narrative

EXHIBIT B

9. Description of place of use:

a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.

b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RANGE	SEC	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
4N	1E	4									A		A	A	A	A	A	A	

Total number of acres to be irrigated _____

10. Describe any other water rights used for the same purposes as described above. Canal shares for irrig. Transfer from stockwater right 63-5087 for mitigation of pond evaporation

11. a. Who owns the property at the point of diversion? Applicant

b. Who owns the land to be irrigated or place of use? Applicant

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: _____

12.. Remarks: See attached narrative and mitigation plan

13. MAP OF PROPOSED PROJECT ATTACHED _____ show clearly the proposed point of diversion, place of use, section number, township and range number.

BE IT KNOWN that the undersigned hereby makes this application for permit to appropriate the public waters of the State of Idaho as herein set forth.

_____

(Applicant)

Received by _____ Date _____ Time _____ Preliminary check by _____

Fee $ _____ Receipted by _____ # _____ Date _____

Publication prepared by _____ Date _____ Published in _____

Publication approved _____ Date _____

Narrative in Support of Revised Application for Permit

Brookwood Subdivision Exchange Well
Aries Development L.L.C.
by Brockway Engineering P.L.L.C.

October 3, 2004

Brookwood is a 382 unit subdivision located in Section 4, T 4N R 1E Boise Meridian north of Eagle, Idaho. This subdivision, located on bottom land and bench areas of Dry Creek, is being developed on irrigated farmland served by the Farmers Union Canal. The Farmer's Union Canal is the east boundary of the subdivision and the historical irrigation diversion from the canal will continue to serve the irrigation requirements for a pressure irrigation system serving all lots and common areas. Domestic water is provided by the municipal system of the City of Eagle.

The subdivision will include water amenities including six (6) multi-purpose ponds providing irrigation storage and aesthetic benefits, Figure 1. The ponds serve as storage for diversions of shares from the canal system during the irrigation season and will be supplemented by ground water provided from a small exchange well during the non-irrigation season.

The purpose of this Application is to obtain a permit for a well to provide water for maintenance of the pond and ditch system. Year round evaporation from the aesthetic/recreational ponds will be mitigated by transfer of a portion of water right 63-5087 from a feedlot owned by the applicant. No mitigation for evaporation from the irrigation/storage ponds is contemplated.

Figure 1 shows the plat of the subdivision, canal diversion, distribution system and the six (6) ponds. Ponds 1,2,3, and 4 are lined with bentonite and compacted earth and Pond 6 is lined with a membrane liner. Pond 5 was lined in 2004 with a bentonite liner. During the non-irrigation season, the pond levels will be maintained with ground water pumped as necessary.

Brookwood owns 11 shares in the Farmer's Union Canal. Each share represents 11 miner's inches of discharge so the canal discharge available to the project is 121 miner's inches or 2.42 cfs. Historically, 186.0 acres have been irrigated on the Brookwood property from the canal, see Figure 2.

The project plan includes 382 single family lots with approximately 50 acres of common area. Irrigation of landscaping and turf on each lot and the common area will be from a pressure distribution system with two booster pumps from the pipe/pond system. The upper booster is located near the canal diversion, and the lower booster diverts from Pond 1 near the west end of the subdivision. Based on the average lot size of 0.22 acres, a residence footprint and paved area of 4200 square feet, the irrigated area on each lot is estimated to be 0.12 acres. For the 382 residences the irrigated area is therefore 45.8 acres. The total irrigated area is therefore 50 + 45.8 or 95.8 acres.

Ponds 1,2, and 3 are utilized as irrigation storage and are tied together hydraulically. The pumping plant for the irrigation system is located at the southwest corner of Pond 1. Ponds 4, 5, and 6 are off-line ponds and are primarily recreational; however, Pond 4 does provide storage for waste water which would normally flow off the property at the corner of Eagle Road and Floating Feather Road. The combined area of ponds 4,5, and 6 is 3.69 acres. The six ponds are designed with an average surface area of 5.17 acres and a volume of 60.7 acre feet.

A model of the pipe, ditch and pond system was prepared to simulate the operation of the system during the irrigation season and evaluate the various components of the water balance. A summary of the spreadsheet model results is attached to this narrative.

Evapotranspiration for the project was determined using procedures outlined in Allen and Brockway, 1983, using the Boise WSO AP station meteorological and Et data. Free water surface evaporation was determined using procedures outlined in 'Monthly Shallow Pond Evaporation in Idaho by Molnau, Kpordze, and Craine, 1992. ASAE paper PNW 92-111.

The lined ponds and ditch were estimated to have operating loss rates of 0.005 ft/day (1/16 in).

The pond model indicates that the system can operate during the irrigation season utilizing the 0.18 cfs inflow from the exchange well with irrigation demand furnished from the canal. The total seepage through all ponds during the irrigation season is estimated to be 0.011 cfs. Evaporation from the pond system during the irrigation season is 16.2 acre feet which includes all ponds and ditches used for irrigation storage and recreation/aesthetics.

The total consumptive use of the project including turf and landscape irrigation, pond evaporation, and residential in-house consumptive use (not provided by the irrigation system) is 258 af/year whereas the pre-project consumptive use from crop irrigation on 185.96 acres is 489 acre feet per year.

Infiltration back to the aquifer through the pond system is estimated at 4.0 acre feet during the irrigation season and 4.0 acre feet during the non-irrigation season. Ground water extraction from the exchange well required to maintain pond seepage and evaporation is estimated at an average of 20.7 acre feet and a maximum of 40 acre feet..

The maximum required discharge from the exchange well is 80 gpm or 0.178 cfs.

The water balance and pond model indicates that pumping from an exchange well on the project of not-more-than 40 acre feet during the non-irrigation season at a rate of 0.178 cfs will maintain pond water levels. Current and any future consumptive use from the pond system will be mitigated. Evaporation from the ponds will be mitigated by transfer of 0.04 cfs and 14 af of ground water under water right 63-5087. The 14 af/a is the calculated evaporation from open water surfaces associated with the non-irrigation ponds during the irrigation season and all ponds during the non-irrigation season. Water right 63-5087 is a stockwater right located in the NE1/4 NW1/4 Sec 3 T 4N R1W in Ada County.

The proposed exchange well would be located near the canal diversion so that discharge can be integrated into the entire distribution system. The aquifer underlying the area is

composed of alluvial sand and gravels with a hydraulic conductivity estimated at 40 ft/day based on well driller's logs in the area. The well will be designed to extract water from the upper water bearing zone which is estimated to be not more than 100 feet below ground surface. An estimate of the draw down from a 6 inch diameter well pumping 0.178 cfs was estimated using a Theis analysis assuming continuous pumping for a 40 day period from the aquifer with an estimated depth of 100 feet. The Theis analysis output is on the spreadsheet included the Appendix. This analysis shows the estimated draw down at 100 feet from the pumped well of 1.68 feet and a draw down of 0.21 feet at 1320 feet from the well. This analysis assumes no return of water to the aquifer through seepage from ponds. The nearest well to the exchange well is approximately 1200 feet. Operation of the pumped well will not significantly affect aquifer water levels in the area.

During the non-irrigation season operation of the exchange well, a maximum of 80 gpm (0.178 cfs) will be pumped from the well. The pond water levels will be maintained in all ponds and the seepage back into the aquifer from all ponds will return to the aquifer system so that impact will not be significant.

Aries Development L.L.C. members are: Mike Hormachea, Amy Wray, Richard Hormachea, and the Hormachea Grandchildren's Trust.

Well Interference Analysis Brookwood Proposed Exchange Well

Estimated Well Drawdown
Revised 7/9/2004 80 gpm well

C.E. BROCKWAY February 12, 2002 Brockway Engineering P.L.L.C.
AQUIFER PROPERTIES BASED ON USBR GROUNDWATER M ^L-ALLUVIAL SAND AND GRAVEL
AND LOCAL WELL DRILLER'S LOGS
EST. HOLE DIA. 6 INCHES

Pond5Lined

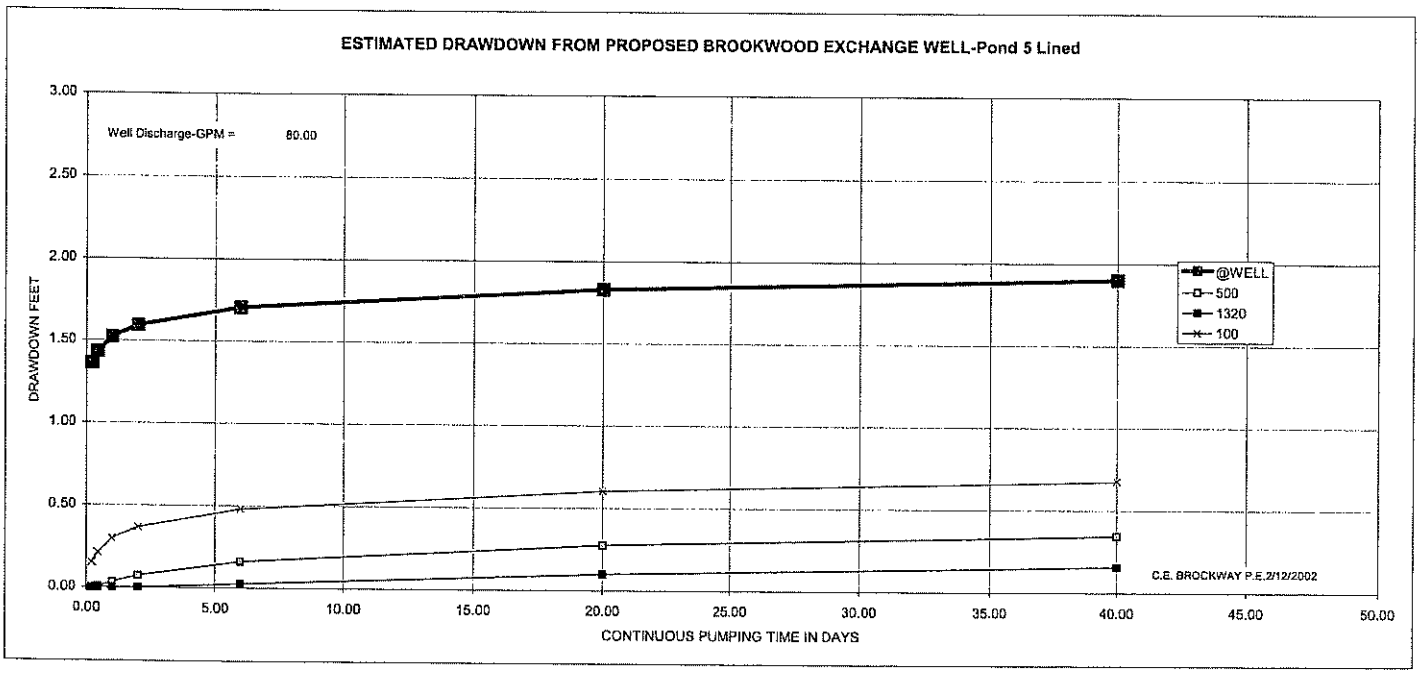
USING THEIS FORMULA S=114.6*Q/T*W(U)
S= DRAWDOWN IN FT
Q= PUMPING RATE GPM
T= COEFFICIENT OF TRANSMISSIBILITY GPD/FT
W(U)= WELL FUNCTION OF 'U'

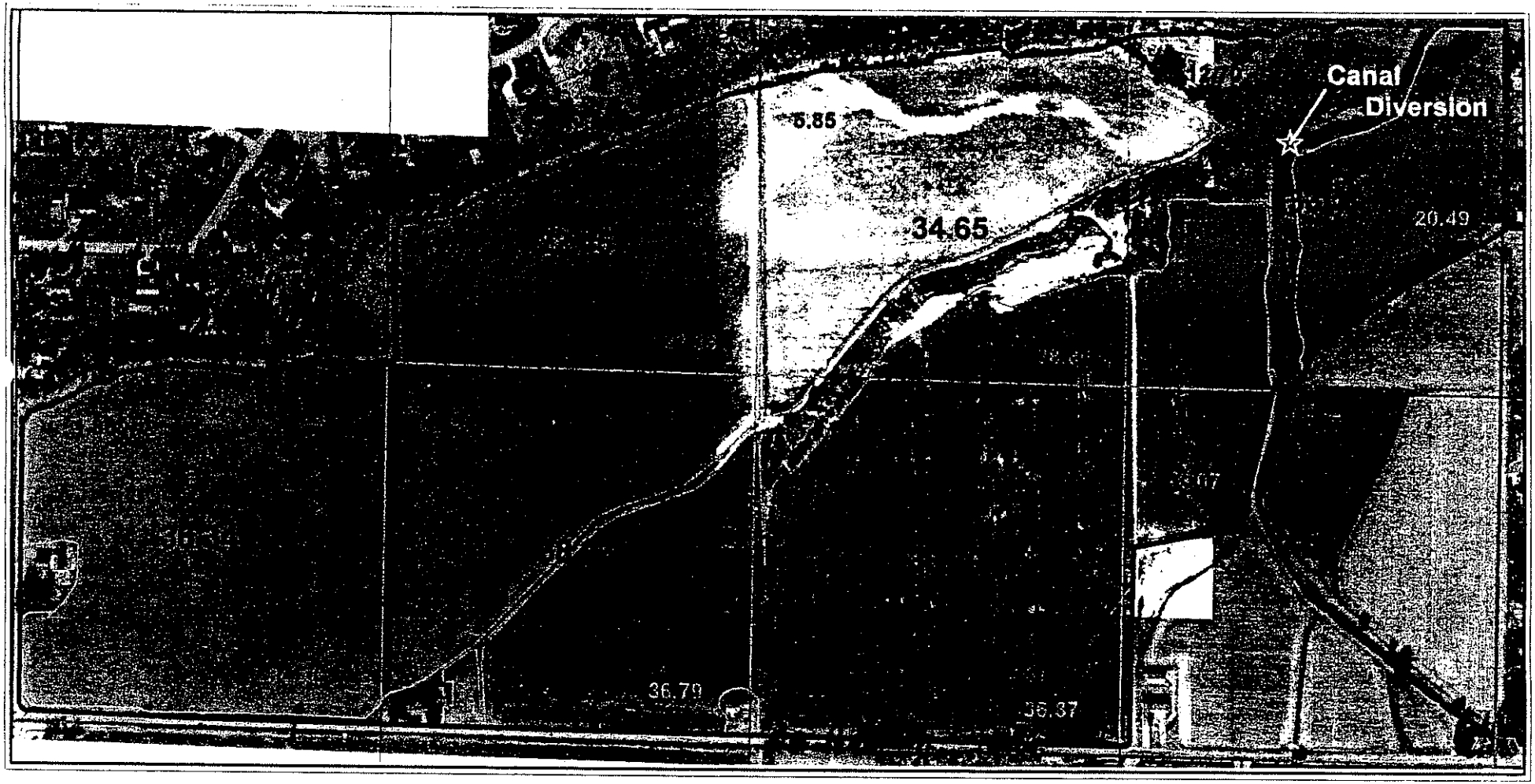
W(U)=-.5772-LOGeU +U-U^2/(2*2!)+U^3/(3*3!)-U^4/(4*4!) .....
U=1.87*r^2*S/(T*t)
r=DISTANCE IN FT. FROM CENTER OF PUMPED WELL TO DRAWDOWN POINT
S=COEFFICIENT OF STORAGE
T=COEFFICIENT OF TRANSMISSIBILITY, GPD/FT
t= TIME SINCE PUMPING STARTED, DAYS
PUMPING WELL

r1=	0.250 FT	K=	40.00	FT/DAY
r2=	100 FT	K=	0.000462963	CFS/FT^2
r3=	500 FT	K=	2.98E+02	GPD/FT^2
r4=	1320 FT	SAT. DEPTH EST.=	300	FT
r5=	5280 FT	TRANSMISSIVITY=	89520	GPD/FT
S=	0.15	TRANSMISSIVITY=	1.39E-01	FT^2/SEC
T=	89520 GPD/FT	TRANSMISSIVITY=	11967.9	FT^2/DAY
Q/WELL	80.00 GPM =	0.178 CFS		

TIME HOURS	TIME t DAYS	U w/r1 0.25	WELL FUNCT. W(U)1	DRAW DOWN @WELL	SPEC. CAP GPM/FT	U W/r2 100	WELL FUNCT. W(U)2	DRAW DOWN @ 100	U W/r3 500	WELL FUNCT. W(U)3	DRAW DOWN @ 500	U W/r4 1320	WELL FUNCT. W(U)4	DRAW DOWN @ 1320
5	0.21	9.400E-07	13.3002	1.36	59	1.504E-01	1.4622	0.15	3.760E+00	0.0013	0.00	2.621E+01	0.0000	0.00
10	0.42	4.700E-07	13.9933	1.43	56	7.520E-02	2.0842	0.21	1.880E+00	0.0578	0.01	1.310E+01	0.0000	0.00
24	1.00	1.958E-07	14.8688	1.52	53	3.133E-02	2.9169	0.30	7.833E-01	0.3201	0.03	5.460E+00	0.0000	0.00
48	2.00	9.792E-08	15.5619	1.59	50	1.567E-02	3.5946	0.37	3.917E-01	0.7166	0.07	2.730E+00	0.0184	0.00
144	6.00	3.264E-08	16.6605	1.71	47	5.222E-03	4.6828	0.48	1.306E-01	1.5852	0.16	9.099E-01	0.2558	0.03
480	20.00	9.792E-09	17.8645	1.83	44	1.567E-03	5.8832	0.60	3.917E-02	2.7015	0.28	2.730E-01	0.9766	0.10
960	40.00	4.896E-09	18.5577	1.90	42	7.833E-04	6.5755	0.67	1.958E-02	3.3754	0.35	1.365E-01	1.5463	0.16

HOURS	DAYS	@WELL	100	500	1320 DISTANCE FEET
0	0.00	0	0	0	0
5	0.21	-1.36	-0.15	0.00	0.00
10	0.42	-1.43	-0.21	-0.01	0.00
24	1.00	-1.52	-0.30	-0.03	0.00
48	2.00	-1.59	-0.37	-0.07	0.00
144	6.00	-1.71	-0.48	-0.16	-0.03
480	20.00	-1.83	-0.60	-0.28	-0.10
960	40.00	-1.90	-0.67	-0.35	-0.16





600 0 600 1200 1800 2400 Feet

N
W E
S

Figure 2.
Brookwood Subdivision
Irrigated Acreage

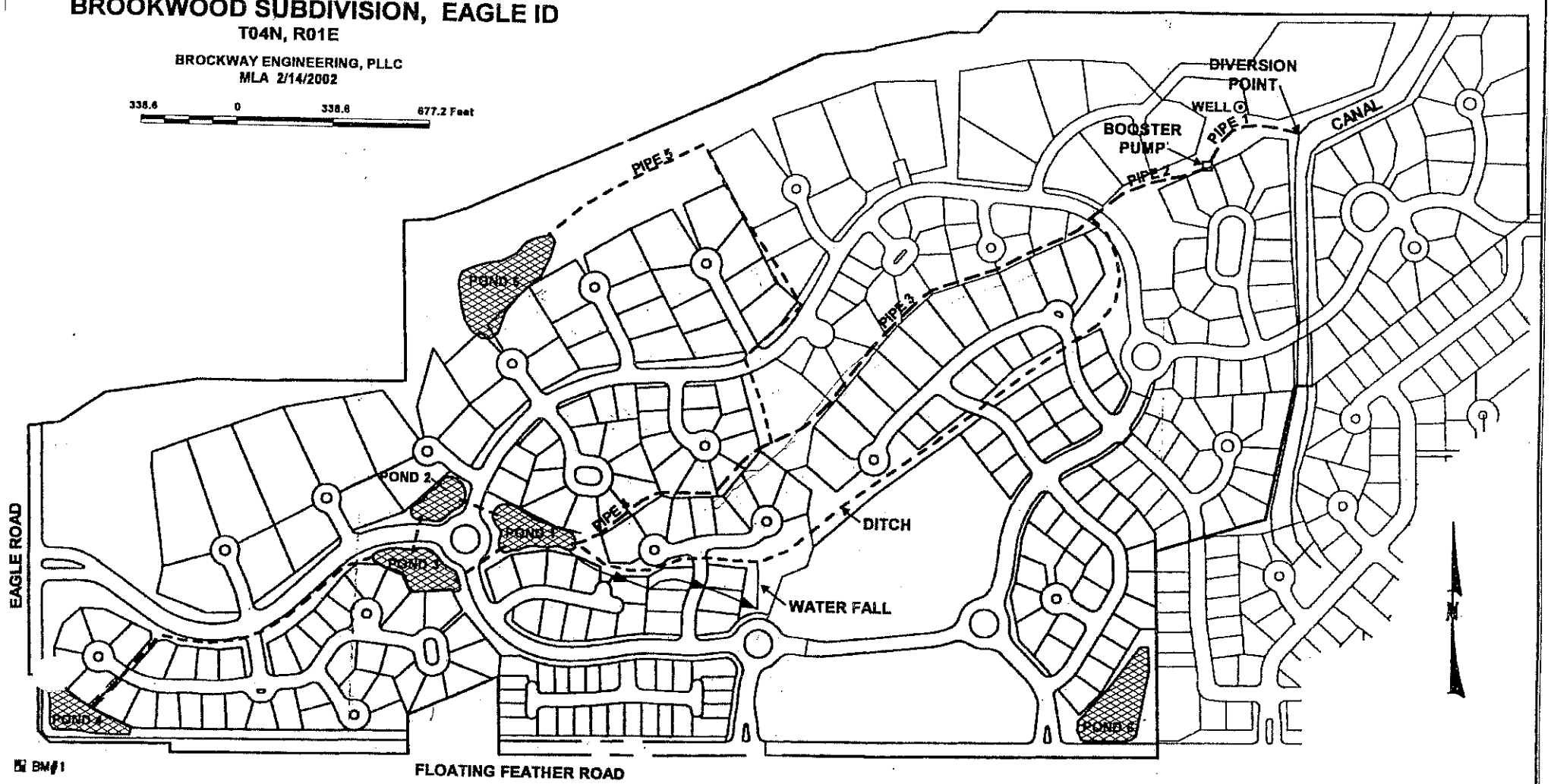
Property Boundary

Irrigated Acreage
Overall Acreage = 185.92

Brockway Engineering, PLLC
MLA 5/28/2002

FIGURE 1.
BROOKWOOD SUBDIVISION, EAGLE ID
T04N, R01E

BROCKWAY ENGINEERING, PLLC
MLA 2/14/2002



BM#1

BROOKWOOD SUBDIVISION WATER REQUIREMENTS
POND EVAPORATION MITIGATION* REVISED

		IRRIGATION SEASON 180 DAYS	NON IRRIGATION 185 DAYS
MAX EVAP RATE in/day		0.230323 x.07	0.081
	AREA acres	POND EVAPORATION AF/DAY	
POND 1	0.48		0.003
POND 2	0.34		0.002
POND 3	0.53		0.004
POND 4	0.46	0.01	0.003
POND 5	2.07	0.04	0.014
POND 6	1.16	0.02	0.008
Total	5.04		
Ponds 4,5,6	3.69		
TOTAL AF/DAY		0.07	0.034
TOTAL CFS		0.04	0.017
TOTAL GPM		16.04	7.741
TOTAL MINERS IN.		1.79	0.862
SEASON EVAP IN.		33.60	8.820
TOTAL VOL AF		10.32	3.705
ANNUAL VOL AF		14.03	
FOR EVAP MITIGATION	IN.	1.79	0.86
	AF	10.32	3.71
TOTAL EVAP MITIGATION		14.03	

MITIGATION OF EVAPORATION FROM PONDS 1,2, AND 3 IS REQUIRED ONLY IN THE WINTER TIME SINCE THESE PONDS ARE PART OF THE IRRIGATION SYSTEM. PONDS 4,5, AND 6 ARE NOT PART OF THE IRRIGATION SYSTEM AND EVAPORATION FROM THESE SURFACES CONSTITUTES ADDITIONAL CONSUMPTIVE USE WHICH WOULD BE MITIGATED WITH THE TRANSFER OF A PORTION OF GROUND WATER RIGHT

POND SEEPAGE* REVISED

		IRRIGATION SEASON 180.00 DAYS	NON IRRIGATION 185.00 DAYS
	Seepage Rate cfs	POND SEEPAGE AF/DAY	
POND 1	0.001		0.002
POND 2	0.001		0.002
POND 3	0.002		0.003
POND 4	0.001	0.002	0.002
POND 5	0.006	0.011	0.011
POND 6	0.001	0.001	0.001
Total	0.011		
Ponds 4,5,6	0.007		
TOTAL AF/DAY		0.015	0.022
TOTAL CFS		0.007	0.011
TOTAL GPM		3.314	4.990
TOTAL MINERS IN.		0.369	0.556
TOTAL ANNUAL VOL AF		2.632	4.072
ANNUAL VOL AF		6.704	

Brookwood Subdivision			C.E. Brockway 7/12/2004
Estimated Design Parameters-Pond 5 Lined			
Max Summertime Evap loss	16.04	gpm for Ponds 4,5,6	required by water right for mitigation
Summertime Seepage Loss	33.21	gpm for Ponds 4,5,6	This could likely be made up from shares
Total	49.25		
Max Non-Irrig Evap Loss	7.74	gpm all ponds	Needed to keep ponds full
Max Non-Irrig seepage loss	4.69	gpm all ponds	Needed to keep ponds full
Total	12.43		
Est. discharge for evap=	16.04	gpm	
Est dischrge for seepage	33.21	gpm	
Est. design smaller well	49.25	gpm	
Safety Factor	1.65		
Recommended well discharge	81.26	gpm	**Use 80 gpm for well-maximum diversion rate**
Annual Volume Requirement			
Yearly Evap	14.03	af	
Yearly est seepage	6.70	af	Ponds 4,5,6 summer. All ponds winter
Total Est seepage	20.73	af/year	
Est Design Volume	34.21	af/year	**Use 40 af/year**

Form 235-1
1/31/03

Drilling Permit No.: _____
Drilling Permit I.D. Tag No.: _____
Water Right Permit No.: _____
Injection Permit No.: _____

State of Idaho
Department of Water Resources

APPLICATION FOR DRILLING PERMIT
(FOR THE CONSTRUCTION OF A WELL)

1. **Owner (please print):** Aries Development LLC
2. **Mailing Address:** P.O. Box 6887
   City: Boise **State:** ID **Zip Code:** 83707 **Telephone:** (208) 939-2552
3. **Proposed Well Location:** Twp. 04N, Rge. 01E, Sec. 4, ____ ¼, NE ¼, SE ¼;
   Gov't Lot No. ____ County Ada Lat. ____:____:____ Long. ____:____:____
   Street Address of Well Site 1/3 mile North of Floating Feather Road City Eagle
   Give at least name of road + Distance to Road or Landmark
   Lot, block and subdivision Brookwood Subdivision
4. **Proposed Use of Well:**
   ☐ DOMESTIC: The use of water fro homes, organization camps, public campgrounds, livestock and for any other purpose in connection therewith, including irrigation of up to ½ acre of land, if the total use is not in excess of 13,000 gpd; or any other uses, if the total use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

   Domestic does not include water for multiple ownership subdivisions, mobile home parks, commercial or business establishments, unless the use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

   NON-DOMESTIC: ☐ Irrigation ☐ Livestock Type ____ # Head ____ ☐ Municipal ☐ Test ☐ Industrial ☒ Other: Aesthetic pond mitigation (Describe)

   ☐ INJECTION

   ☐ MONITORING: A well bore schematic and map is required for each blanket permit. No. of proposed wells: ____
5. **Well Construction Information:**
   A. ☒ New Well ☐ Modify ☐ Replace
   B. Proposed Casing Diameter 6 Proposed Maximum Depth 100
   C. Anticipated bottom hole temperature:
   ☒ 85°F or less (Cold Water Well) ☐ 85°F to 212°F (Low Temp. Geo. Well) ☐ 212°F or more (Geothermal Well)
6. **Construction Start Date:** October 2004
7. **Anticipated Well Driller:** TBD Driller's Lic. No. ____
   NOTE: The actual well driller must be identified prior to drilling.
8. **Applicant's Signature:** Charles E. Brockway Date: 10/04/04
   Address (if different than owner): Brockway Engineering PLLC, 2016 Washington Street North, Suite 4
   City: Twin Falls State: ID Zip Code: 83301 Telephone: 208-736-8543
   Title: Charles E. Brockway, Engineer (Owner Representative)
   (Owner, Firm Representative, Other)

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This Permit is _____. Date: _____

If approved, this permit authorizes the construction of modification of a well subject to the following conditions. **READ CAREFULLY!**

GENERAL CONDITIONS:

1. This drilling permit is valid for two (2) months from the above approval date for the start of construction and is valid for one (1) year from the approval date for completion of the well unless an extension has been granted.
2. This permit does not constitute an approval of the District Health Department or the Idaho Department of Health and Welfare, which may be required before construction of the well. All wells must be drilled a minimum distance of 100 feet from a drain field. Domestic and Public Water Supply wells must be drilled a minimum of 50 feet and 100 feet respectively from a septic tank.
3. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.
4. Approval of this drilling permit does not authorize trespass on the land of another party.
5. This permit does not represent a right to divert and use the water of the State of Idaho.
6. This drilling permit does not represent a right to divert and use the water of the State of Idaho.
7. If a bottom hole temperature of 85° or greater is encountered, well construction shall cease and the well driller and the well owner shall contact the Department immediately.
8. Idaho Code, S 55-2201 – 55-2210 requires the applicant and/or his contractors to contact "DigLine" (DigLine is a one-call center for utility notification) not less than 2 working days prior to the start of any excavation for this project. The "DigLine" number for your area is 1-800-342-1585.
9. Please be advised that this drilling permit should be considered and treated as a preliminary permit. If you are in disagreement with this preliminary permit you have fourteen (14) days of the service date of this permit to petition the Department for reconsideration pursuant to Section 67-5243, Idaho Code.
10. The well tag for the drilling permit/start card shall be securely and permanently attached to the well casing through welding or by the use of four closed and domed stainless steel pop rivets. The tag attachment will be done at the time of completion of the well, and prior to removing the drill rig from the drill site.

SPECIFIC CONDITIONS:

_____ _____

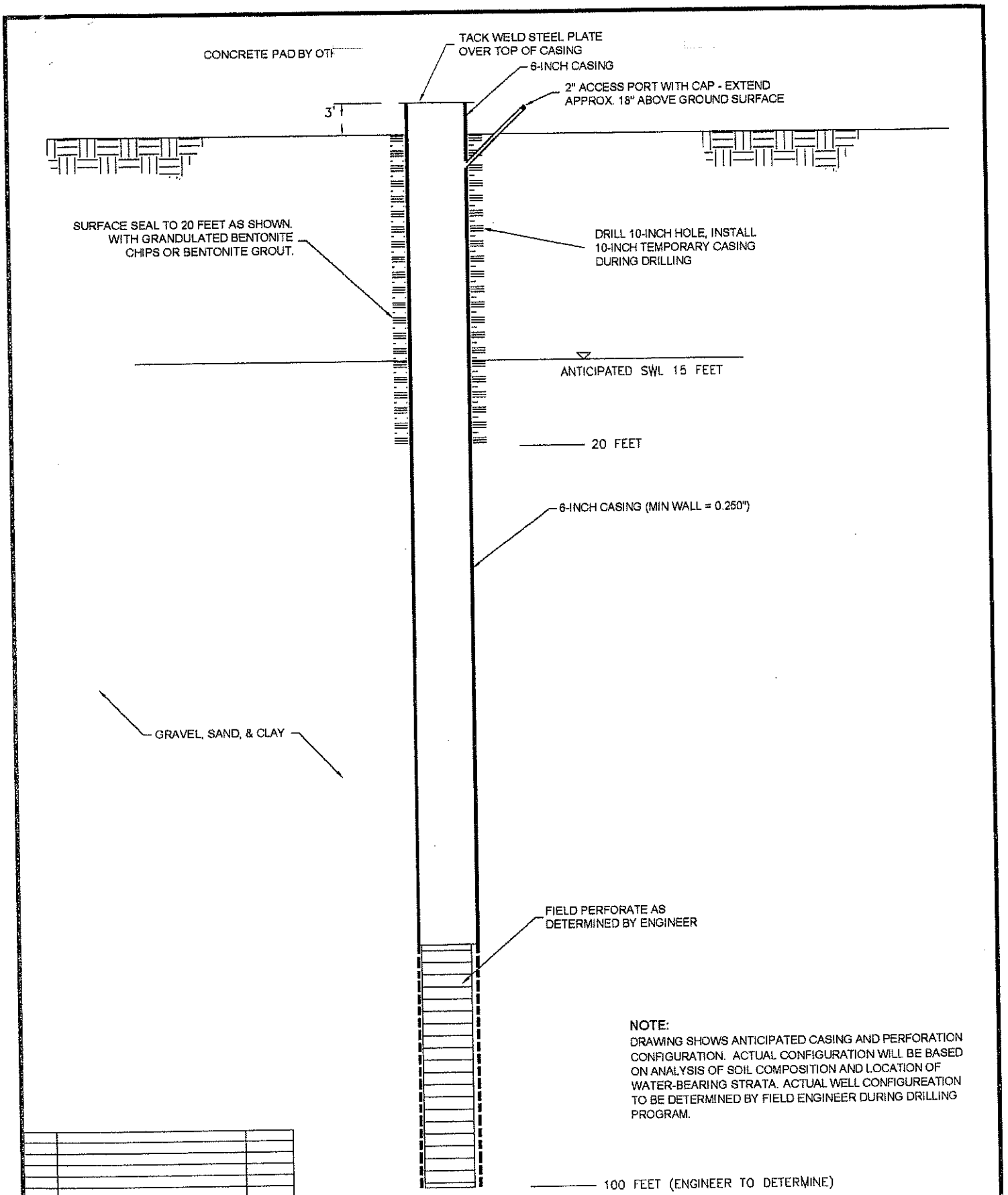
Signature of Authorized Department Representative Title

Receipt No.: _____ Receipted by: _____ Fee: _____ Date: _____

EXTENSION OF DRILLING PERMIT

Extension approved by: _____ Approval Date: _____

This extension expires: _____



NOTE:
DRAWING SHOWS ANTICIPATED CASING AND PERFORATION CONFIGURATION. ACTUAL CONFIGURATION WILL BE BASED ON ANALYSIS OF SOIL COMPOSITION AND LOCATION OF WATER-BEARING STRATA. ACTUAL WELL CONFIGUREATION TO BE DETERMINED BY FIELD ENGINEER DURING DRILLING PROGRAM.

REV	DESCRIPTION	DATE

THIS DRAWING HAS BEEN PREPARED BY BROCKWAY ENGINEERING, PLLC FOR A SPECIFIC PROJECT TAKING INTO ACCOUNT THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH BROCKWAY ENGINEERING & THE CLIENT IS GRANTED.

SCALE 0"-000'
(8.5 X 11 DWG ONLY)
DESIGNED BY CEB
DRAWN BY ALR

BROCKWAY ENGINEERING, PLLC
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
WTIN FALLS, ID 83301
(208) 736-8543

ARIES DEVELOPMENT-BROOKWOOD SUBDIVISION

WELL SECTION & CONFIGURATION
PROPOSED NEW WELL

PROJECT # 521-01-2001
DATE 10/04/04
REV △