Use Area	Water Source	Location/ Description	Longitude/ Latitude	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
AB9 - Rider	Rider Canyon Seep	Approximately 1/4 mile up from the mouth of Rider Canyon in the bed of the drainage.	(Approx.)  111 44' 55"W/ 36 39' 45"N	S	Mar-02	John Azar	0.5 liter/ min.	Excellent	This seep flows into a small basin in the bedrock where one can dip a cup and fill a bottle. Update, this spring was dry as a bone in March, 2002.
AC9 - South Canyon	Vasey's Paradise	River Mile 32 on River Right	TBD	Р	None	N/A	Large	Excellent	Source in Redwall Limestone
AD9 - Saddle Canyon	Buck Farm Creek	River Mile 41 on River Right	TBD	Р	None	N/A	TBD	TBD	Source is in the Muav Limestone
AD9 - Saddle Canyon	Craig's Rainpool	On the Esplanade Point to the upriver side of the mouth of 36.67 mile canyon, sometimes referred to as Mitchell Canyon because Ron Mitchell is credited with finding this descent route. This is also referred to as "Randy's Route"	111 51'W/ 36 27'N	S	Mar-02	John Azar	350 gal+	Excellent	This pool is one of the largest that I have seen in Marble Canyon. It sits, along with two small potholes nearby, atop a huge block of Supai Sandstone that overlooks Mitchell Canyon. Although the two potholes probably dry up during the hot season, the rainpool would offer some water through the summer. **UPDATE, not so, the rainpockets were all dry when we were there in October, 2001, Yep, dry again in March of 2002!
AE9 - Nankoweap	Little Nankoweap	Only rainpools below the Redwall. No route from Tilted Mesa to River.	TBD	S	???	Butchart	TBD	TBD	

			Laurellanda (	Perennial	Data of				
			Longitude/	(P)/	Date of	Person	Volume		
Use Area	Water Source	Location/ Description	Latitude	Seasonal (S)	Last Report	Reporting		Quality	Additional Comments
USE Alea	Water Source	Location/ Description	(Approx.)	(3)	Report	Reporting	(Approx.)	Quality	Additional Comments
		Wet weather seeps in a							
		couple of ravines							
		leading down to the							
		saddle of Saddle							
		Mountain. In soil over							
		Kaibab Limestone.							
		Running stream in lower							
		Nankoweap Creek and							
		along stretches higher							
		up, especially in the arm							
		north of Woolsey Point.							
		Some above ground in							
		the arm to the Kolb							
AE9 -		Bridge and in the next							
Nankoweap	Nankoweap	fork south.	TBD	S	???	Butchart	TBD	TBD	
		A seep spring flows							
		from the base of the							
		Redwall below and							
		between Sullivan Peak							
		and Hancock Butte. A							
		small fault ravine							
		connects Kibbey Butte							
		saddle and							
		Sullivan/Hancock							
		saddle. The spring is	444 =0.55						<b>_</b>
AE9 -	Sullivan/	located in the north arm	111 58'20"W/	D.0	0 / 00		1.5 liters/		This spring appears to be
Nankoweap	Hancock	of this fault ravine.	36 15'40"N	P?	Oct-96	John Azar	min.	Excellent	permanent.
AE9 -	Nankoweap	Off Namicas To "	Manteres	Б	NI=	N1/A	TDD	TDD	Source in the Muav
Nankoweap AF9 - Chuar	Creek 60 Mile Creek	Off Nankoweap Trail Near Butte Fault	Various TBD	P S	None None	N/A N/A	TBD TBD	TBD TBD	Limestone
Ars - Chuar		Seep along Butte Fault	טסו	<u>ა</u>	None	IN/A	עמו	עמו	Supply is marginal  East Fork seep may be
AF9 - Chuar	(East Fork)	may be poison,	TBD	S	???	Butchart	TBD	Poor	toxic
Al 9 - Cliual	(Lasi FUIK)	Safe seep on half mile	טטו	3	111	Dutchart	100	FUUI	IOAIG
		north of Carbon Butte in							
	Carbon Creek	a ravine west of the							
	(Near Carbon	Butte Fault arm of							
AF9 - Chuar	`		TBD	S	???	Butchart	TBD	TBD	
AF9 - Chuar	Butte)	Carbon.	TBD	S	???	Butchart	TBD	TBD	

Han Ama	W-4 0	Landing Description	Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume	مراند مراند	Additional Commonts
Use Area	water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
		In cool weather water							
		flows to the River from a							
		spring just east of the							
		junction with the							
		drainage west of Juno							
		Temple. A hot afternoon							
		will stop the water by							
		evaporation from the							
		shale bed, but by 3 a.m.							
		the flow reaches the							
		whole bed. Spring (50							
		yds.) the side stream							
		soutwest of teh word							
		Carbon on the east half							
		of the map. At least							
		three springs including a							
		shower bath drip spaced							
		along the north arm of							
		Lava Creek below Point							
		Atoka. There is water in							
		the bed a little to the							
	Chuar (Lava	south of Hartman							
AF9 - Chuar	Creek)	Natural Bridge.	TBD	P?	???	Butchart	TBD	TBD	
		Permanent water from							
		where the word "Creek"							
		occurs on the east half							
		map. Seeps at the							
		bottom of the Redwall in							
	Kwagunt	the arm west of Banta		_					This is a more reliable
AF9 - Chuar	Creek	Point.	TBD	S	None	N/A	TBD	TBD	seasonal source.
AF9 - Chuar	Lava Canyon	Runoff	TBD	S	None	N/A	TBD	TBD	

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
	Malgosa	As you head down the Malgosa drainage towards the river from the Butte Fault Trail look for a large boulder on your right with typical spring-type growth. Within this cluster behind the boulder, is a seep spring	111 49'35"W/ 36		March,				This seep is shaded by trees and shrubs. The water emerges from the ground and forms a small pool. It is easy to collect from the source with a wide-mouth water bottle. On our way to this spring from the Butte Fault we found 3 separate springs well above this one. What is weird is that these springs were dry when I was here last, and to find them flowing in such a dry
AF9 - Chuar	Canyon	that has good water.	14' 25"N	S	2002	John Azar	1 liter/ min.	Excellent	year is odd.
AG9 - Unkar	Basalt Creek	There is usually a little bitter water north of where the east half map says "Basalt" in Basalt Cliffs. Farther upstream where the map says "Springs", I found a grove of cottonwoods and reeds but no water in sight.	TBD	S	???	Butchart	TBD	Bitter	
		During wet seasons I would count on finding four seeps, the farthest upstream being north of							
AG9 - Unkar	Unkar	the word "Unkar.'	TBD	S	???	Butchart	TBD	TBD	

				la carryon v					
Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
		•			•				
AG9 - Unkar	Unkar Creek	Runoff pools	TBD	S	None	N/A	TBD	TBD	
		Water is permanent in the lower bed above the fall to the river. The mining camp was here. I haven't found the basis for the word "Spring" on the map. It is difficult to get down to the upper							
		valley above the barrier							1
		fall. Look in the main							
AH9 -	Asbestos	arm below the Tonto							
Vishnu	Canyon	formation	TBD	P?/S	???	Butchart	TBD	TBD	
AH9 -		In wet seasons there is water in the Tapeats narrows and also in the higher part of the Archean. One can reach the River by a difficult climb up and down spurs to the east of the							
Vishnu	Vishnu	bed.	TBD	S	???	Butchart	TBD	TBD	
AH9 - Vishnu	Vishnu Creek	Look near the Tonto Formation. Runoff pools	TBD	S	None	N/A	TBD	TBD	Water can also be found in Tinajas (Rock cavities that collect rainwater).
AJ9 - Cheyava	Clear Creek	No problem. Some water even in the arm coming from Cape Royal. Local water near Cheyava. Dry above. West arms are dry. The main creek starts in the shale south of Arial Point.	TBD	Р	???	Butchart	TBD	TBD	
AK9 - Clear	3.5d. 0.00A	East end of the Clear	. 35			Datonart	.55	, 55	
Creek	Clear Creek	Creek Trail	TBD	Р	None	N/A	TBD	TBD	

									Ī
			l amorituda/	Perennial	Data of				
			Longitude/ Latitude	(P)/	Date of	Davasa	Volume		
Use Area	Water Source	Location/ Description		Seasonal	Last	Person Reporting		Quality	Additional Comments
USE Area	Water Source	At the Muav layer in	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
		upper Haunted Canyon.							
		South of the C in							I have visited this spring
AP9 -		Canyon (Haunted) as	112 06' 37"						many times over the years
Phantom	Haunted	shown on the USGS	W/				10 liters/		and seems to be
Creek	Spring	map.	36 09' 33" N	P?	Jun-94	John Azar	min.	Excellent	permanent.
AP9 - Phantom	. 0	The main source is up Haunted Canyon about halfway to the head of the Redwall gorge from the juction with Phantom. There is a spring a short distance up Phantom from the junction and a little more water on the surface in the shale directly below							
Creek	Phantom	Shiva, the bed that is.	TBD	S	???	Butchart	TBD	TBD	
AP9 - Phantom Creek	Phantom Canyon	At the base of the Redwall in upper Phantom Canyon, near what is known as the Hippie Camp.	112 08'10"W/ 36 09'30"N	P?	Apr-02	John Azar	7 liters/ min.	Excellent	This flow appears to be permanent. We found several springs between the mouth of Haunted Canyon and the Hippie Camp, with the strongest flow about mid way up, a large marsh surrounds the spring.
AP9 - Phantom Creek	Phantom Creek	Off the North Kaibab Trail approximately 2 miles north of Phantom Ranch	TBD	P	None	N/A	TBD	TBD	Source in the Muav Limestone
AQ9 - Trinity Creek	Crystal Creek	Off the North Rim-Trans- Canyon Route	TBD	P?	None	N/A	TBD	TBD	Source is in the Tapeats Sandstone

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
OSC AICA	Water Source	Crystal Spring, that	(дрыох.)	(5)	Report	Reporting	(дрргох.)	Quanty	Additional Comments
		keeps water flowing in the bed below, is east of							
AQ9 - Trinity		the word "Grama" on the							Source is in the Tapeats
Creek	Crystal Spring	east half map.	TBD	P?	None	N/A	TBD	TBD	Sandstone
AQ9 - Trinity Creek	Dragon Creek	The main Dragon Spring is in the Tapeats narrows about where the east half map prints the first T in Amphitheater. There are other springs that show locally up both arms of Dragon in the forested narrows of the Redwall. Crystal Spring, that keeps water flowing in the bed below, is east of the word "Grama" on the east half map.	TBD	Р	???	Butchart	TBD	TBD	
AQ9 - Trinity Creek	Dragon Spring	South of the Head of the Dragon in the bed of Dragon Creek drainage. You will hear this spring as you approach the descent route from above the spring, which is down in a bowl.	112 10'40"W/ 36 10' 30"N	P	Apr-02	John Azar	5 liters/ min.	Excellent	In 1990 there was a beaver dam here with numerous cottonwood trees to provide shade. The spring emerges from below a large chockstone that creates this scenic spot. In mid-April, 2002, although flowing less than I've seen it before, a good and steady flow will fill your bottle quickly.

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
AQ9 - Trinity		There are some seeps in the schist where the east half map places the word "Trinity". An apparently permanent rain pool lies in the arm coming down form the Shiva-Isis Saddle where th bedrock (Shinumo							
Creek	Triniity	Quartsite) last shows.	TBD	S	None	N/A	TBD	TBD	
AQ9 - Trinity Creek	Trinity Creek	Look near the Tonto Formation.	TBD	S	None	John Annerino	TBD	Poor	Annerino reports "Stomach- wrenching"
AR9 - Scorpion Ridge	Abyss Cave	Located 1/4 mile east of the intersection of Modred Creek and Modred fault ravine. This is the main source of the Modred Creek flow.	112 15' 29" W/ 36 17' 21" N	P?	Oct-98	John Azar	25 cfs	Excellent	Abyss Cave is located in the Muav and the water flow comes out like someone left the fire hydrant on. This cave has been mapped back into the cliff some 2,000 feet.
AR9 - Scorpion Ridge	Bivouc Spring	In the bed of the drainage of the first side canyon upriver from Monadnock Ampitheater. 1/4 mile up from the Colorado River.	112 18'W/ 36 11'N	S	May-92	John Azar	0.25 liter/ min.	Good	This spring saved our bacon when we found it after becoming extremely dehydrated coming in from the east Tonto from Tuna.

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
AR9 - Scorpion Ridge	Flint/ Tuna Saddle	Near the base of the descent route (rim to saddle) from west of Point Sublime (see Steck Loops) to the Flint/Tuna Saddle. Located at the base of the Toroweap.	112 15'50"W/ 36 12'20"N	Ø	Apr-02	John Azar	0.5 liter/ min.	Fair	This is a good spot to collect water before descending down into Tuna or Flint drainages. It is dry below the saddle until the bed of Flint to the west, and Tuna Spring (confluence of two arms) to the east. Although this spring was dry when we camped on the saddle, we passed 3 active springs on the way up to the saddle from the bed of Tuna. To be safe, gather some water at one of these springs before ascending the last steep section of cliffs. (April, 2002)
AR9 - Scorpion Ridge	Merlin Spring	Flows from a gravel bar some 1/2 mile below the intersection of Merlin Creek and Merlin fault ravine.	111 18'W/ 36 18'N	P?	Oct-98	John Azar	15 cfs	Excellent	Other than a small seep at the base of the Toroweap, this will be the last reliable water source as you exit to Swamp Ridge via the west arm of Merlin.

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
		Located in the Muav on							
		your left as you descend							
		Modred from Elaine							
		Saddle. It is							
		approximately 1/2 mile							
		from the bed of the fault							
		ravine. We fashioned a							
		collection tarp that conveniently had a							
		cigarette burn hole in							
		the middle. The steady							
		dripping from the ceiling							This will be your first water
AR9 -		of the overhang is							if you come down from
Scorpion		concentrated in a 3'x 3'	111 16'W/				0.5 liter/		Lancelot Point. A good
Ridge	Modred Spring	area.	36 17' 38"N	S	Oct-98	John Azar	min.	Excellent	campsite is close by.
		1/8 mile up from the							
		Colorado River in the							
		bed of Monadnock							
		drainage. This spring							
		fills a small frog pond							
		below from a difficult to							
		access location. From							
		above the spring one can lower a water bottle							
AR9 -		with a rope and with	111 18'						This spring is probably
Scorpion	Monadnock	•	05"W/ 36						intermittent, drying up in the
Ridge	Spring	water.	10'55"N	S	May-92	John Azar	1 liter/ min.	Good	summer months.
		Water flowing down	10 00 11		,				
		from South Big Spring.							
AR9 -		Water in spots in the							
Scorpion		Flint arm to the junction							
Ridge	Shinumo	with Gawain.	TBD	S	???	Butchart	TBD	TBD	
AR9 -	04	Lies west of Big Springs							
Scorpion	South Big	Canyon and at the head	TDD	DO	Nama	NI/A	TDD	TDD	
Ridge	Springs	of Shinumo Creek	TBD	P?	None	N/A	TBD	TBD	

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source		(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
		There are usually seeps							
		in the bed of the Tapeats below the							
		junction of the two arms.							
		One can reach the River							
		through the ravine off							
		the Tonto about one half							
		mile west of Tuna.							
		Apparently permanent							
AR9 -		rain pool occur in the							
Scorpion		Redwall in the west arm							
Ridge	Tuna Creek	of Tuna.	TBD	S	???	Butchart	TBD	TBD	
									This is the spring that the
									1944 Army parachutists
									used to survive until they
									could be rescued by A. A.
									McRae and Ranger Ed
									Laws 10 days after landing near here. They were
									ordered by their pilot to bail
									out of a B-24 bomber on a
		This spring, which							cold, dark night in June.
		seems to be permanent,							Update, other than a small
		is located near the							seep below the ruin, the
		confluence of the two							only water here is up the
AR9 -		arms of Tuna Creek	112 15'						west arm of Tuna, about
Scorpion		Drainage (Tapeats	20"W/ 36				1.5 liters/		500 yards above its junction
Ridge	Tuna Spring	Sandstone level)	10' 30"N	P?	Apr-02	John Azar	min.	Excellent	with the east arm.
AS9 - North	Shinumo	River Mile 108.5 on		_					Source is in the Muav
Bass	Creek	River Right	TBD	Р	None	N/A	TBD	TBD	Limestone

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
AS9 - North	Shinumo	Springs east of the Muav Saddle along the good trail. Water in the lower Hermiit Shale and top Supai below these springs. Water in the bed a short distance south of where the Bass Trail gets to the bottom of the Redwall. White's Creek flows from just below the Tapeats. This gorge can be entered on the east side in a ravine just north of Redwall							
Bass AS9 - North	Creek	Canyon. Below the east of Muav	TBD	Р	None	N/A	TBD	TBD	
Bass	White Creek	Saddle	TBD	P?	None	N/A	TBD	TBD	
AT9 - Powell Plateau	Queen Ann's Spring	Just east of Muav Saddle. Look for a fork in the trail as you begin to drop down through the Coconino on the North Bass Trail. Take the left turn at this large cairn to go to the spring.		P?	May-02	John Azar	1 liter/ min.	Excellent	I have visited this spring a dozen times and have never seen it dry. Make a funnel and insert it into the moss bank to collect water. Update, the same flow as always here during a dry spring.
AU9 - Blacktail	120 Mile	River Mile 120 on River							
Canyon	Creek	Right at Blacktail Canyon	TBD	P?	None	N/A	TBD	TBD	
AU9 -	0.000	Canyon	, 55		110110	14/71	100	100	
Blacktail Canyon	Bedrock Canyon Creek	River Mile 130.5 on River Right	TBD	P?	None	N/A	TBD	TBD	

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
AU9 - Blacktail Canyon	Crazy Jug Spring	In the bed of Crazy Jug drainage in the Muav Sandstone, just above the Crazy Jug/Saddle Canyon confluence.	112 23' 05" W/ 36 23' 20" N	P?	May, 2002	John Azar	3 liters/ min.	Excellent	A wonderful spot. We camped just below here after descending Saddle Canyon from Teddys Cabin. Flowing nicely and a good taste. We didn't bother to filter or treat this water, no ill effects.
AU9 - Blacktail Canyon	Crazy Jug Spring	Springs in the Crazy Jug arm in the upper Supai. More seeps along the Esplanade to the east but one of these needs a search since it is below the trail.	TBD	Ø	???	Butchart	TBD	TBD	
AU9 - Blacktail Canyon	Crazy Jug Spring	In the bed of Crazy Jug drainage in the Muav Sandstone, just above the Crazy Jug/Saddle Canyon confluence.	111 23' 05" W / 36 23' 20" N	P?	May, 2002	John Azar	3 Liters/ min.	Excellent	
AU9 - Blacktail Canyon	Galloway	One seep below the Tapeats	TBD	S	???	Butchart	TBD	TBD	
AU9 - Blacktail Canyon	Galloway Canyon Creek	River Mile 131.5 on River Right	TBD	P?	None	N/A	TBD	TBD	

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
AU9 - Blacktail Canyon	Powell Spring	Powell Spring is located north of Muav Saddle and east of the Saddle Canyon drainage. According to Butchart the supply can't be trusted.	112 21'30"W/ 36 21'05"N	S	May-02	John Azar	2 liters/ min.	Excellent	Located in the drainage between Swamp Point and Fire Point at the base of the Toroweap Sandstone. The trail to the spring from Muav Saddle has become overgrown and it is a bit of a hassle to access. It was used extensively by the cowboys who ranged their stock on Buckskin Mountain.**UPDATE, There are actually 3 springs here, one in the bed, one from the north, and one from the south. Good flow here in October, 2001. Another update, one can access these springs from Fire Point. A deer trail leads down through the Kaibab Limestone, then some route finding is neccessary to descend to the bottom of the Toroweap.
AU9 - Blacktail	Saddle	Look below the Muav							Water also can be found in Tinajas (Rock cavities that
Canyon	Canyon	Saddle for runoff pools	TBD	S	None	N/A	TBD	TBD	collect rainwater).
AU9 - Blacktail Canyon	Saddle Canyon	There are usually rain pools in the upper Redwall of Saddle Canyon.	TBD	S	???	Butchart	TBD	TBD	
AU9 - Blacktail Canyon	Stone	Water from springs above the bed on the east below the Redwall.	TBD	S	???	Butchart	TBD	TBD	

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
AU9 -	Water Source	Location/ Description	(Approx.)	(3)	Report	Reporting	(Approx.)	Quality	Additional Comments
Blacktail		River Mile 132 on River							
Canyon	Stone Creek	Right.	TBD	S	None	N/A	TBD	TBD	
AW7 -		From Tapeats Cave							
Tapeats	Tapeats	above the confluence							Source in the Muav
(Upper)	Spring	with the Thunder River	TBD	Р	None	N/A	Large	Excellent	Limestone
AW7 -		Thunder River Trail at							
Tapeats		the confluence with							Source in the Muav
(Upper)	Thunder River	Tapeats Creek	TBD	Р	None	N/A	Large	Excellent	Limestone
AW7 -									
Tapeats	Thunder	Thunder River Trail							Sourc in the Muav
(Upper)	Spring	below the Redwall	TBD	Р	None	N/A	Large	Excellent	Limestone
AX9 - Deer		River Mile 136 on River		_			_		Source is in the Muav
Creek	Deer Creek	Right	TBD	Р	None	N/A	Large	Excellent	Limestone
AX9 - Deer	Deer Creek	Surprise Valley Trail		_					Source in the Muav
Creek	Spring	below the Redwall	TBD	Р	None	N/A	Large	Excellent	Limestone
									Very slow seep(s) filling
									several largish potholes.
									Probably at least 50 gallons
									total. Reportedly present in
		In the drainage below							previous years as well, but
		Ghost Rock, 1-3							looks very much like it
		minutes downstream							would be dry in summer/fall,
AX9 - Deer	Ghost Rock	towards upper Deer		_			1 liter/ min.	_	unless refilled by
Creek	pools	Creek	TBD	S	May-01	Dave Marcus	(?)	Good	thunderstorms.

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
									Water emerged briefly from
									gravel in creek bed ran
									across slick rock for 1.5
									feet; then vanished back
									into gravel. Water was also
									located further downstream in pothole before large pour
									off in the redwall. This water
									was quite stale. Water was
									also located in side canyon
		Located between Supai							to the west of Deer Creek
		layer and Redwall layer	112 30' 17"						before the redwall in a large
AX9 - Deer	Vaughn	of the Deer Creek	W/ 36	0			1 gal./ 10-		pot hole the size of a Spa.
Creek	Springs	drainage.	26' 09" N	S	May-00	John Nanke	12 min	Excellent	This water was also stale.
									Two main drips supplied all
AZ9 -	Cranberry	Bottom of fault ravine at	112 31' 03"/				8 qts./ 6		but 2 quarts of the water.
Fishtail	Spring	Redwall/Supai contact.	36 25' 30"	S	Jun-04	Mike Hill	hrs.	Good	Much slower than 94 or 01.
		Above the river between							
AZ9 -	0: 1 0 :	the mouths of Tapeats	TDD	<b>D</b> 0	4000	George		- " '	This seems to be a
Fishtail AZ9 -	Siesta Spring Unnamed	and Fishtail River Mile 138 on River	TBD	P?	1990	Steck	3 gal./ min	Excellent	permanent water source.
Fishtail	Seep	Right	TBD	S	None	N/A	TBD	TBD	
1 101110	ЗЗЭР	In the bed of the							
		drainage at the Supai							
		level in upper Fishtail							This spring provided the
		Canyon (main arm.)	112 31' 53"						cowboys of the early 20th
AZ9 -	Walapai	Some signs of a cowboy		DO	M 07	I - I	0 1:4/	E II 4	century water for men and
Fishtail	Johnny	camp here.	26' 21" N	P?	May-97	John Azar	2 liters/ min.	Excellent	livestock.  Warning: Radioactive spill
									in Rio Puerco tributary.
									Water is high in carbonates
		River Mile 61.5 at the							making it rough on the
BA9 -	Little Colorado	east end of the Beamer							stomach. Limit
Palisades	River	Trail	TBD	Р	None	N/A	Large	Poor	consumption

				Perennial					
			Longitude/	(P)/	Date of				
			Latitude	Seasonal	Last	Person	Volume		
Use Area Wa	/ater Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
		In the west arm of							
		Tanner Canyon at the							
R	Rainpool at	top of the Redwall there							
BB9 - the	he top of the	is a rainpool that may be							
Tanner	Redwall	permanent.	TBD	S	???	Butchart	TBD	TBD	
BB9 -	Tanner	At the fork below Desert							Access is off trail. Supply is
Tanner	Canyon	View	TBD	S	None	N/A	TBD	TBD	marginal.
Tanner i	Tanner anyon - Seep in the bed	At the base of the Redwall Descent, head east down to the bed of Tanner. Head up the drainage until the Tapeats cliffs begin to pinch out. Look for an alcove on the left filled with Red Bud trees. In the back of the alcove is an overhang. The spring drips down from the ceiling of the overhang.	111 49'05"W/ 36 03'05"N	S	Oct-98	John Azar	0.5 liter/ min.	Excellent	Both times I have visited this spring to collect water the flow has been the same. I did not treat or filter this water and suffered no ill effects from drinking it.
BC9 -	75 Mile								
Cardenas	Canyon	In the west fork	TBD	S	None	N/A	TBD	TBD	Access is difficult
BC9 -		Contradicting Lange, I found an easy deer trail down Escalante Canyon to the River. It is to the					5,000		Quality ranges to fairly clear to brown mud. Should
Cardenas	Escalante Canyon	west of the barrier fall in the bed.	N/A	Р	???	Butchart	5,000- 25,000 cfs	Fair	purify.

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
BD9 - Red	Red Canyon	Below the point where the trail descends the Redwall. This water first appears in the bed of the drainage near the top of the Redwall break. It then reappears in the Tapeats  Sandstone, also in the bed of Hance Creek	111 56' 05" N/ 36 00' 07" W	P?	Apr 00	John Azar	2.5 liters/		As you head up the Red Canyon Trail from Hance Rapids, you reach the first water from this spring as you come into the Tapeats Sandstone. If you plan on not treating this water, be sure to find the actual source, not a lower pool. The spring first appears in the bed near the top of the Redwall. Not far away is the 3659 Bench Mark.
Canyon	Spring	Canyon. Hance Canyon near the	00 07 VV	Ρ?	Apr-00	John Azar	min.	Excellent	3059 Bench Wark.
BE9 - Hance Creek	Grandview Spring	east arm of the Grandview Trail Hance Canyon near the	TBD	P?	None	N/A	TBD	TBD	Source is Muav Limestone
BE9 - Hance		east arm of the							
Creek	JT Spring	Grandview Trail	TBD	P?	None	N/A	TBD	TBD	Source is Muav Limestone
BE9 - Hance Creek	Miner's/ Page Spring	Below the east side of Horseshoe Mesa at the base of the Redwall. Located under an overhang on the right hand side of the drainage as you descend. Turn right at the old steel wheelbarrow.	111 58' 20" W/ 36 00' 59" N	Р	Apr-00		3 liters/ min.	Excellent	Some believe that this water has a higher than normal radium content.
BE9 - Hance Creek	Hance Creek	0.75 miles from junction below Miner's Spring via the Tonto Trail	TBD	P	None	N/A	TBD	TBD	
OLCCK	Tidilice Creek	uie ronto mail	טטו	ı	NONE	1 N/ / T	יטטו	יטטו	

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
BE9 - Hance	Hance Spring	In the bed of Hance Canyon near the site of John Hance's Winter Cabin, which was washed away in the	111 56' 55' W/ 36						This site was a standard stop/over for Hance and his guided trips to the river from his camp on the rim. John Hance also used this cabin as a winter residence when the snows got too heavy on above. As you walk up the drainage towards the Redwall Limestone, look on the left for a small side drainage that holds the
Creek	(Upper)	1930's.	00' 10" N	Р	Apr-00	John Azar	3 liters/ min.	Excellent	spring.
BF5 - Horseshoe	Miner Page	Below the east side of Horseshoe Mesa at the base of the Redwall. Located under an overhang on the right hand side of the drainage as you descend. Turn right at the old steel	111 58' 20'' W/		April,		3 liters/		Some believe that this water has a higher than
Mesa	Spring	wheelbarrow.	36 00' 59" N	Р	2000	John Azar	min.	Excellent	normal radium content.
BG9 - Cottonwood Creek	Cottonwood Creek	In the middle fork in the reeds.	TBD	S	None	N/A	TBD	TBD	Not to be confused with O'Neill Springs

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
		At the end of the spur trail shown on the east half map, but it is only a wet hole under an overhang with one willow growing near. The spur trail can be followed all the way to the spring if you keep a close eye and know that it treads a bit uphill (but,							
		no sudden climbs). It							
BG9 -		takes about 15 minutes				Dennis			
Cottonwood Creek	O'Neill Spring	to get to the spring site from the main trail.	TBD	S	4/21/12	Foster	TBD	TBD	Dry on 4/21/12
BH9 -	o Hom opining	morn the main trail.	100		1/2 1/ 12	1 00101	100	100	21y 011 4/21/12
Grapevine Creek	Boulder Creek	Evident by spring vegetation	TBD	S	None	N/A	TBD	TBD	Supply is marginal
BH9 - Grapevine Creek	Grapevine Creek	East fork of Grapevine Canyon just off the	TBD	Р	None	N/A	TBD	TBD	
BJ9 -	Cremation	Tonto Trail	טפו	Г	None	IN/A	טפו	טסו	
Cremation	Canyon	Eastern wall of canyon	TBD	S	None	N/A	TBD	TBD	Supply is marginal
BJ9 - Cremation BJ9 -	Cremation Spring	Cremation Canyon below the northern and western most point of the Pattie Butte mesa. Look for vegetation.	112 03' 47" W/ 36 04' 39" N	P?	May-10	Ned Bryant	1 liter/ min.	Excellent	Weeping spring at the bottom of the Redwall. The only greenery around makes it easy to locate. Flows as a steady stream in the brush below the source. Also found good water here at ~1 liter/minute on October 10, 2009after a severe summer drought when Lonetree was bone dry.
Cremation	Lonetree Canyon	Evident by spring vegetation	TBD	S	None	N/A	TBD	TBD	Supply is marginal

			Longitude/	Perennial (P)/	Date of				
			Latitude	Seasonal	Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
			` ,	` '			, ,		Seasonal but more reliable.
BL4 - Hermit		Crosses Tonto Trail							Radioactive.
Loop (Horn		approximately 2.5 miles							Recommended to used only
Creek)	Horn Creek	west of Indian Garden	TBD	S	None	N/A	TBD	TBD	in dire emergencies.
BL5 - Salt Creek	Salt Creek	A few minutes downstream of trail crossing	TBD	w	Sep-05	Gene Fowler	1 gal./ min.	Good	The best water was at the base of a 15 foot fall. Purify if you do not like the additional nutrients provided by algae, tadpoles and insects. I met Ken Walter on the way to Salt. He said it was the most water had ever seen in Salt. Do not count on it always being like this. In July, 1977 I had to dig in the gravel to get water. Sometimes there may be none.
	Can Orook	Crosses Tonto Trail	100		- COP 00	Corio i owior	r gail, min.	0004	may be none.
BL7 -	Monument	approximately 10.5 miles west of Indian							
Monument Creek	Creek	Garden	TBD	Р	None	N/A	TBD	TBD	
		Crosses Tonto Trail approximately 2.5 miles west of Monument							Avoid consumption. High fecal coliforms. Use Colorado River as water
BM7	Hermit Creek	Creek	TBD	Р	None	N/A	Large	Poor	source in this area.
DNO	Doughar	Off the Boucher Trail							
BN9 - Boucher	Boucher Creek	just upstream of Boucher Creek Camp	Various	Р	None	N/A	Large	Excellent	
BN9 - Boucher	Dripping Springs	Off the Boucher Trail approximately one mile west of the Hermit Trail junction.	TBD	P	None	N/A	TBD	Good	Source in the Coconino Sandstone
Douchel	Springs	junction.	טטו	Г	INOHE	IN/A	טטו	Good	Sanusione

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
									If you get to to Slate and there is no water near the trail crossing go upstream about 1 to 1 1/2 miles. There may be pools in the Muav around a dry fall. If not much there go upstream a half mile more
		About 1 to 1 1/2 miles							to the Redwall and there
	Slate Canyon	upstream of the Tonto							are some seaps and small
BO9 - Slate	(Upper)	Trail crossing	TBD	S	Oct-03	Gene Fowler	trickle	Good	pools.
		Water at places above the Tonto Trail approxmiately 5 miles west of Boucher Creek Camp. One can get down into the lower bed at two places from the							
		east side and walk to							Source in the Muav
BO9 - Slate	Slate Creek Turquoise	the River. Off the Tonto Trail approximately 11.5 miles west of Slate	TBD	P	None	N/A	TBD	TBD	Limestone  Source in Bright Angel
BO9 - Slate	Canyon	Creek	TBD	P?	None	N/A	TBD	TBD	Shale
BP9 - Ruby	Ruby Canyon	Rainpools near the Tonto Trail in wet seasons. Look above the trail.	TBD	S	???	Butchart	TBD	TBD	Water also can be found in Tinajas (Rock cavities that collect rainwater).
BP9 - Ruby	Serpentine Canyon	One can get down to the river through Serpentine or the Canon just to the east. Look above where the Tonto Trail crosses the wash.	TBD	Ø	???	Butchart	TBD	TBD	Water also can be found in Tinajas (Rock cavities that collect rainwater).

	I		I			Ī			<u> </u>
				Perennial					
			Longitude/	(P)/	Date of	_			
			Latitude	Seasonal	Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
		Wet season source at							
		Bedrock Tanks. One							
		can reach the River by							
		leaving the bed above							
BQ9 - South		the last drop and going							
Bass	Bass Canyon	to the west	TBD	S	???	Butchart	TBD	TBD	
BQ9 - South Bass	Ross Wheeler Seep	On the south side of the river at the head of Bass Rapids. A shaded alcove with a sandy beach is located adjacent to the spring.	111 20' 25"W/ 36 13' 30"N	Ø	Oct-95	John Azar	2 liters/ min.	Excellent	A lot of hikers have a hard time finding the descent route (South Bass Trail) from below the Tapeats to the river near the Ross Wheeler. The Ross Wheeler is a metal boat left here by Crazy Charlie Russell and his cohorts (Monett and Tadje) when they abandoned their river trip and hiked out at South Bass.(1908)
BR9 - Garnet	Chemehuevi Seep	There is a seep west of Chemenuevi Point and above the Apache Trail. It is located south of Drummond Plateau, between Toltec and Chemenuevi Points at the base of the Toroweap Sandstone.	112 23' 50" W/ 36 10' 30" N	P?	Oct-95	John Azar	0.25 liter/ min.	Excellent	From the Esplanade look up to the south at the top of the Coconino scree for a springlike clump of growth. It is a steep scramble up to the spring, taking 15-20 minutes. This seep would surely have a better flow in the Springtime. Billy Driscoll and I had to build a catch basin with silt when we collected water in late October.

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
BR9 - Garnet	Copper Canyon	Off Tonto Trail approximately 4.5 miles west of Bass Canyon. Rainpools in the Archean and in the vertical mine shaft at the Bass Copper Mine. This can be reached by a spur trail from the east off the Tonto and also from the west side of the Canyon.	TBD	P?	Nov-04	Bob Hostetler	Several Gallons	Good	I've found water in the main drainage four times in a row the past three years in April and October by going down to Bass's camp/mine area and looking somewhat up and downstream. The best water has been in granite pools below Bass's camp. You can access the area by dropping all the way down the drainage where the Tonto crosses the Canyon at the upper end or, more efficiently, you can drop into Copper from the east or the west through Tapeats breaks. Go to gloaming.com or write me for details bobhostetler@yahoo.com.
Garriet	Carryon	Carryon.	טטו	F!	1107-04	าเบรเซแซโ	Galions	Good	Dobi lostetlei (@yarioo.com.

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
Use Area	Water Source	Location/ Description	(Approx.)	(5)	Report	Reporting	(Approx.)		I&sqve found water in the main drainage four times in a row the past three years in April and October by going down to Bass&sqs camp/mine area and looking somewhat up and downstream. The best water has been in granite pools below Bass&sqs camp. You can access the area by dropping all the way down the drainage where the Tonto crosses the Canyon at the upper
									end or, more efficiently, you can drop into Copper from the east or the west
									through Tapeats breaks. Go
									to gloaming.com or write
	Copper	Copper Canyon from				Bob	Several		me for details
BR9 - Garnet	Canyon	Tonto Trail			12/2/04	Hostetler	Gallons	Good	bobhostetler@yahoo.com.
BR9 - Garnet	Elves Chasm	The best water is a Elves Chasm from the stream.	TBD	Р	None	N/A	TBD	TBD	·

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
DD0		Rainpools, but you can reach the River a little to the sourthwest of the mouth of Garnet. One can continue along the River past Fossil Bay.  The best water is at							Water can also be found in
BR9 - Garnet	Garnet Canyon	Elves Chasm from the stream.	TBD	S	???	Butchart	TBD	TBD	Tinajas (Rock cavities that collect rainwater).
BR9 - Garnet	Royal Arch Creek	Below the Apache Trail	TBD	P	None	N/A	TBD	Poor	Avoid consumption due to high fecal coliforms from lower and mid Elves Chasm. Source is Elves Chasm.
BR9 -	Royal Arch	Rainpools in Royal Arch Creeek in the Supai can be reached by climbs down along the west and south arms. The permanent flow begins about one third mile south of the word Elves on the west half map. There is a chance for rainpools in the west arm and below the top of the Esplanade to the	TRD	D	222	Rutchart	TRD	TRN	
Garnet	Creek	weest of the south arms. Practically sure water at	TBD	Р	???	Butchart	TBD	TBD	
BS9 - Fossil	140 Mile Canyon	the end of the Great Thumb trail at the grove of cottonwoods.	TBD	P?	???	Butchart	TBD	TBD	Source in Bright Angel Shale
BS9 - Fossil	Forster Canyon	River Mile 123 on River Left	TBD	P?	None	N/A	TBD	TBD	Source in the Bright Angel Shale

Use Area Water Source Location/ Description (Approx.)  A deep rainpool where the main arm comes down to Supai bedrock. Seeps under the Coconino at the upper end of the main arm.  BS9 - Fossil Fossil Bay  TBD S 7?? Butchart TBD TBD Source in Bright Angel  BT9 - Olo Canyon  On Esplanade, West rim of 140-Mile Canyon.  Large pothole on Esplanade it was first brought to my attention by Bob Marte, it can be spotted with binoculars from rim of Great Thumb.  There is a spring to the west of the bridge. One can go off the Esplanade at the saddle separating this canyon from Olo and walk down the fault ravine.  BT9 - Olo Olo Creek  Reporting (Approx.)  Quality Additional Commen (Approx.)  Quality Additional Commen (Approx.)  Additional Commen (Approx.)  Quality Additional Commen (Approx.)  Additional Commen (Approx.)  Additional Commen (Approx.)  Butchart TBD TBD Source in Bright Angel Shale  Source in Bright Angel Shale  Source in Bright Angel Shale  Fight Angel Shale  None N/A TBD TBD Source is in the Bright Angel Shale  Off the North Kaibab Trail approximately 5.5 miles north of Phanton Siles of O'Neil Butte O'R harton Siles on the Musu				Longitude/	Perennial (P)/	Date of				
A deep rainpool where the rmain arm comes down to Supia bedrock. Seeps under the Coconino at the upper end of the main arm.  BT9 - Olo Canyon  TBD S ??? Butchart TBD TBD  Source in Bright Angel  Shale  On Esplanade, West rim of 140-Mile Canyon. Large pothole on Esplanade, It was first brought to my attention by Bob Marky. It can be spotted with binoculars from rim of Great Thumb.  There is a spring to the west of the bridge. One can go off the Esplanade at the saddle separating this canyon from Olo and walk down the fault ravine.  BT9 - Olo Olo Creek  Reyhole BT9 - Olo Olo Creek  Reyhole BT9 - Olo Olo Creek  Thurb.  TBD S None BT9 - Olo Olo Creek  River Mile 145.5 on River Left  TBD P None  N/A TBD TBD  Source is in the Bright CBG-Cred of O'Neill Butte  Off the North Kaibab Trail approximately 5.5 miles north of Phanton  TBD P? None  N/A TBD TBD Source is in the Bright Angel Shale  Source is in the Muav	Lloo Area	Water Course	Location/Decomination						Ovalita	Additional Comments
the main arm comes down to Supai bedrock. Seeps under the Coconino at the upper end of the main arm.  BT9 - Olo Canyon	Use Area	water Source	Location/ Description	(Approx.)	(5)	Report	Reporting	(Approx.)	Quality	Additional Comments
the main arm comes down to Supai bedrock. Seeps under the Coconino at the upper end of the main arm.  BT9 - Olo Canyon			A deep rainpool where							
Seeps under the Coconino at the upper end of the main arm.  140 Mile BT9 - Olo Canyon  On Esplanade, West rim of 140-Mile Canyon. Large pothole on Esplanade, it was first brought to my attention by Bob Marley. It can be spotted with binoculars from rim of Great Thumb.  There is a spring to the west of the bridge. One can go off the Esplanade at the saddle separating this canyon from Olo and walk down the fault ravine.  BT9 - Olo Olo Creek  Reyhole  BT9 - Olo Olo Creek  Pipe Creek off the Tonto Trail west of the South Kaibab Trail. Northwest of Corridor Burro Spring  Off the North Kaibab Trail approximately 5.5 miles north of Phantom  Seeps under the exponent at the unper end of the main arm.  TBD S P??? Butchart TBD TBD Source is in the Might Angel  Sey?? Butchart TBD TBD Shale  P???? Butchart TBD TBD Shale  Source is in the Bright Angel  Butchart TBD TBD Source is in the Bright Angel  Source is in the Bright Angel  Source is in the Muay  Source is in the Muay			the rmain arm comes							
BS9 - Fossil   Fossil Bay   Coconino at the upper end of the main arm.   TBD   S   ???   Butchart   TBD   TBD   Source in Bright Angel   Shale   Sha			down to Supai bedrock.							
BS9 - Fossil   Fossil Bay   end of the main arm.   TBD   S   ???   Butchart   TBD   TBD   Source in Bright Angel			-							
BT9 - Olo										
BT9 - Olo Canyon Left. TBD P? ??? Butchart TBD TBD Shale  On Esplanade, West rim of 140-Mile Canyon. Large pothole on Esplanade. It was first brought to my attention by Bob Marley. It can be spotted with binoculars from rim of Great Thumb.  BT9 - Olo Pothole There is a spring to the west of the bridge. One can go off the Esplanade at the saddle separating this canyon from Olo and walk down the fault ravine.  BT9 - Olo Olo Creek River Left TBD S None N/A TBD TBD  Pipe Creek off the Tonto Trail west of the South Kaibab Trail. Northwest of O'Neill Butte TBD P? None N/A TBD TBD TBD Angel Shale  Source is in the Bright Angel Shale  Source is in the Muav	BS9 - Fossil			TBD	S	???	Butchart	TBD	TBD	
On Esplanade, West rim of 140-Mile Canyon. Large pothole on Esplanade. It was first brought to my attention by Bob Marley. It can be spotted with binoculars from rim of Great M/ 36 Thumb.  BT9 - Olo Pothole  There is a spring to the west of the bridge. One can go off the Esplanade at the saddle separating this canyon from Olo and walk down the fault ravine.  BT9 - Olo Olo Creek  River Mile 145.5 on River Left  Pipe Creek off the Tonto Trail west of the South Kaibab Trail. Northwest of O'Nelli Butte  CBG - Corridor  Burro Spring  Off the North Kaibab Trail. Northwest of O'Nelli Butte  CBG - Ribbon  Ribbon  Off the North Kaibab Trail approximately 5.5 miles north of Phantom  There is a spring to the west of the South Kaibab Trail approximately 5.5 miles north of Phantom  Source is in the Muav										
of 140-Mile Canyon. Large pothole on Esplanade. It was first brought to my attention by Bob Marley. It can be spotted with binoculars from rim of Great Thumb.  There is a spring to the west of the bridge. One can go off the Esplanade at the saddle separating this canyon from Olo and walk down the fault ravine.  BT9 - Olo Natural Bridge River Left River Ri	BT9 - Olo	Canyon	Left.	TBD	P?	???	Butchart	TBD	TBD	Shale
BT9 - Olo Natural Bridge the fault ravine. TBD S None N/A TBD TBD  River Mile 145.5 on River Left TBD P None N/A TBD TBD  Pipe Creek off the Tonto Trail west of the South Kaibab Trail. Northwest of O'Neill Butte TBD P? None N/A TBD TBD Angel Shale  CBG - Ribbon miles north of Phantom  CBG - Ribbon Source is in the Muav	BT9 - Olo	Pothole	of 140-Mile Canyon. Large pothole on Esplanade. It was first brought to my attention by Bob Marley. It can be spotted with binoculars from rim of Great Thumb.  There is a spring to the west of the bridge. One can go off the Esplanade at the saddle separating this canyon	W/ 36	S	Apr-01		200+ gal	Excellent	
River Mile 145.5 on River Left TBD P None N/A TBD TBD  Pipe Creek off the Tonto Trail west of the South Kaibab Trail. Northwest of O'Neill Butte TBD P? None N/A TBD TBD Source is in the Bright Angel Shale  CBG - Ribbon River Left TBD P? None N/A TBD TBD Angel Shale  CBG - Ribbon Source is in the Muav	BT9 - Olo	•		TBD	S	None	N/A	TBD	TBD	
CBG - Kaibab Trail. Northwest Off the North Kaibab Trail approximately 5.5 CBG - Ribbon miles north of Phantom	B10 010	Tratarar Briago		100		110110	14/7	100	100	
CBG - Kaibab Trail. Northwest Off the South Kaibab Trail. Northwest Off the North Kaibab Trail approximately 5.5  CBG - Ribbon Miles north of Phantom  Trail west of the South Kaibab P? None N/A TBD TBD Source is in the Bright North N/A TBD TBD Angel Shale  Source is in the Bright N/A TBD TBD Angel Shale  Source is in the Muav	BT9 - Olo	Olo Creek		TBD	Р	None	N/A	TBD	TBD	
CBG - Ribbon miles north of Phantom Source is in the Muav			Pipe Creek off the Tonto Trail west of the South Kaibab Trail. Northwest of O'Neill Butte	TBD	P?	None		TBD	TBD	
Corridor   Springs   Panch   TRD   D   None   N/A   TRD   Evaplant   I importance	CBG - Corridor		Trail approximately 5.5	TBD	Р	None	N/A	TBD	Excellent	

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Use Area	Water Source		Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
CBG - Corridor	Roaring Springs	Off the North Kaibab Trail approximately 10 miles north of Phantom Ranch	Various	Р	None	N/A	Large	Excellent	Source in the Muav Limestone
CBG - Corridor	Bright Angel Creek	Runs throught Bright Angel Canyon alongside the North Kaibab trail and through Bright Angel Campground to the Colorado River	Various	P	None	N/A	Large	Poor	Avoid consumption due to high fecal coliforms. Source is from the North Rim
CCG - Corridor	Transept Spring	In Transept Canyon just north of Cottonwood Campground	TBD	P?	N/A	N/A	TBD	TBD	Source in the Muav Limestone
CIG - Corridor	Garden Creek	Along Bright Angel Trail	Various	Р	None	N/A	Good	Poor	Avoid consumption. High fecal coliforms
CIG - Corridor	Pipe Spring	In the bed of Pipe Creek, where the Tonto Trail crosses the drainage west of the South Kaibab Trail.	112 05' 55" W/ 36 04' 10" N	Р	Mar-95	John Azar	15 liters/ min.	Good	Because of heavy traffic in this area, this water should be filtered or treated. In 1929, the Fred Harvey Company built a cabin just above the drainage here. It was destroyed by a flash flood in 1976. The foundation is still evident to the east of the drainage. Source is in the Bright Angel Shale

				Perennial					
			Longitude/	(P)/	Date of	Doroon	Volume		
Use Area	Water Source	Location/ Description	Latitude (Approx.)	Seasonal (S)	Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
		•	, , , ,	, ,	•		, , ,		
		Topacoba Spring north of the Topacoba Trail at							
		the base of the							
		Coconino. Seeps and							
		rainpools in Lee Canyon							
		not far abouve the							
		Junction with Rattlesnak							
		Srping in Moqui Trail							
		Canyon at the base of							
		the Coconino just south							
		of where the rtrail enters							
		the Coconino gorge.							Avoid consumption due to
Hayaaynai		Possible rainpools in							semi-treated sewage that's pumped into the creek
Havasupai Indian		many side ravines. Highwall Spring shown							below Supai Village.
	Havasu Creek	on the Supai Quad.	Various	Р	None	N/A	Large	Poor	Source is Havasu Springs.
Havasupai	Tiavada Grook	on the Supur Quad.	various	•	110110	14/7 (	Largo	1 001	Course is Flavaed Opinige.
Indian	Havasu	Havasupai Indian							
Reservation	Springs	Reservation	Various	Р	None	N/A	Large	Good	Source in the Supai Group
		Off of the Hermit Trail					J		
		just below the junction of							
Hermit/No	Santa Maria	the Dripping Springs							Source in the Esplanade
Camping	Spring	Trail	TBD	Р	None	N/A	TBD	Good	Sandstone
		River Mile 143 on River	TDD			N1/A	TDD	TDD	
LA9 - Kanab	Kanab Creek	Right	TBD	Р	None	N/A	TBD	TBD	
									Re-discovered by Robert
									Benson, this seep is located
		In a side arm of SOB							below a cowboy camp on the Esplanade. The early
		(150 mile) Canyon in the							cowboys had built a cement
		Supai layer. As you							catch basin for the spring. It
		descend from Hotel							was still intact in 1997. I
		Spring, look for a							checked on this spring
		drainage coming in from							during my through Canyon
		the left. This is below							hike and in April, 2002, it
LB9 -		the first chockstone	112 44'30"W/						was wet enough to gather
Boysag	Benson Spring	rappel.	36 23'N	S	Apr-02	John Azar	2 liters/min	Excellent	water.

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
LB9 - Boysag	Dome Spring	3/4 mile northeast of The Dome at about 3800 foot contour.	TBD	Ø	Mar-00	Mike Coltrin	TBD	Good	In May of 1999 and March of 2000 there was a flowing spring keeping several potholes filled with good water. In November of 1999 only the highest pothole contained water. After about three gallons were pumped the remaining water was muddy. By the next afternoon the source was replenished.
LE9 - Parashant	Shanley Spring	Below Kelly Tanks, near the Snyder Mine	TBD	0	Oct-05	John Azar	100 liter pool	Good	This is an important water source for anyone exploring the vicinity of 214 mile or Trail Canyon. From the top of the Trail Canyon arm that flows down from Snyder Mine, follow the old trail to a leftside bypass. There is stone bridging and steel rods that were put in place by Albert "Old Man" Snyder. The spring is fed from the underground aquifer and will refill to the same level after water is removed. See what Ellsworth Kolb had to say about Old Man Snyder in his write-up about their winter 1911 river trip.
LJ9 - Surprise	Amos Spring	Below Coconino west of Shivwits Plateau	TBD	S	May-00	Mike Coltrin	seep	Fair	100 gallons available in holding pond

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
NA0 - Walhalla Plateau	Cliff Spring Formation	East end of the Clear Creek Trail	TBD	P?	None	N/A	TBD	TBD	Source is the Toroweap Formation
Kanab National	Jumpup	Lower Jumpup Spring is located down the drainage from upper Jumpup Spring, approximately 1.5	112 33' 50"W/		May,		2 liters/	Fundament.	Lower Jumpup Spring has a ledge obstacle that is bypassed on stream left via an old wooden ladder, or on stream right by jumping up from a stack of rocks, thus the name Jumpup. On our way to Jump Up Cabin, and susequently after our re-supply from friends in Fredonia, I checked on the flow of Lower Jump Up Spring. Not much flow at the first emergence, but lower down near the bypass one could collect water. In normal years there is a good flow here, continuing down to the confluence with Mountain Sheep Spring flow in
Forest	Spring, lower	miles.)	36 31' 20"N		2002	John Azar	min.	Excellent	Sowats.

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
Kanab National	Jumpup Spring		112 32'20"W/ 36 33'10"N		May,		3 liters/	Fugallant	This spring appears to be permanent. The wooden trough (discarded to the side) dates back to the 19th century. The present concrete trough was constructed in conjunction with the construction of the Jumpup Ranger Station (cabin) in 1906. I did not notice any diminished flow
Forest	(Upper)	watering trough.	30 33 10 N		2002	John Azar	min.	Excellent	here.
Kanab National Forest	Jumpup Spring (Lower)	Lower Jumpup Spring is located down the drainage from upper Jumpup Spring, approximately 1.5 miles.)	112 33' 50"W/ 36 31' 20"N	P?	May-02	John Azar	2 liters/ min.	Excellent	Lower Jumpup Spring has a ledge obstacle that is bypassed on stream left via an old wooden ladder, or on stream right by jumping up from a stack of rocks, thus the name Jumpup. On our way to Jump Up Cabin, and susequently after our resupply from friends in Fredonia, I checked on the flow of Lower Jump Up Spring. Not much flow at the first emergence, but lower down near the bypass one could collect water. In normal years there is a good flow here, continuing down to the confluence with Mountain Sheep Spring flow in Sowats.

			Longitude/ Latitude	Perennial (P)/ Seasonal	Date of Last	Person	Volume		
Use Area	Water Source	Location/ Description	(Approx.)	(S)	Report	Reporting	(Approx.)	Quality	Additional Comments
Kanab National Forest	Mountain Sheep Spring	Mountain Sheep Spring is located near the confluence of Sowats and Jumpup drainages.	112 33' 25"W/ 36 30' 45" N		May, 2002	John Azar	2 liters/ min.	Excellent	The spring, although diminished, still ran to the confluence of Jump Up and Sowats drainages.
Various	Topocoba Hilltop	At the head of Lee Canyon below the rim.	112 34' 34" W/ 36 12' 12" N	S	Oct-93	John Azar	2.5 liters/ min.	Good	Some cow droppings nearby the spring. Quality ranges to fairly clear
	Colorado River	Colorado River Access Points	Various	Р	None	Gene Fowler	5,000 - 25,000 cfs	Fair	to brown mud. Should purify.
	Cottonwood Spring	In upper Tuckup	TBD	S	None	N/A	TBD	TBD	
	Matkatamiba Canyon Matkatamiba	Seeps deep in the Supai in the arm north of Mt. Akaba. The ground was dry by the cottonwoods uphill from the trail. Rainpools in the upper part of the main arm far above barrier falls. Seep in the Sinyala Fault on the east side of the gorge below the pass separating Matkatamiba from Sinyala Canyon. (Obeserved in April)		S	???	Butchart	TBD	TBD	
	Matkatamiba Canyon	River Mile 148	TBD	P?	None	N/A	TBD	TBD	
	Olo Canyon	Seep in the arm southwest of Gatagama Point at the place where the 4,500 foot contour crosses the bed.	TBD	S	???	Butchart	TBD	TBD	

Use Area	Water Source	Location/ Description	Longitude/ Latitude (Approx.)	Perennial (P)/ Seasonal (S)	Date of Last Report	Person Reporting	Volume (Approx.)	Quality	Additional Comments
	Sinyala Canyon	Permanent small flow near the botom of the Supai a little to the west of where the Sinyala Fault meets the main Sinyala Canyon.	TBD	P?	???	Butchart	TBD	TBD	
	Spring Canyon Seep		TBD	S	May, 2001	Billy Driscoll	1 cfs		Creek flowed to the river from the source when we were there. Water tested and seems to be reliable without treating.
	Tuckup	TBD	TBD	S	None	N/A	TBD	TBD	Difficult to reach from the River

<sup>\*</sup> This table is a compilation of information obtained from various sources, including but not limited to:

<sup>-</sup> Grand Canyon Hikers and Backpackers Association website and forum postings (http://www.gchba.org)

<sup>-</sup> Hiking the Grand Canyon, a Sierra Club Totebook by John Annerino

<sup>-</sup> National Park Service Grand Canyon Trail Descriptions (Various)

<sup>-</sup> Harvey Butchart Notes compiled in September of 1967

<sup>-</sup> Personal experience